Unemployed New Entrants and Reentrants to the Labor Force

LAUS Research Report
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Background:

The estimation of unemployment at the substate level has long been a concern of the Local Area Unemployment Statistics (LAUS) program. There have been indications that the current estimating procedure underestimates the level of unemployment in labor market areas (LMAs). Over the past few years, research has been directed at the substate unemployment estimation methodology.

The current procedure calculates estimates for unemployed individuals in two categories: those identified in the Unemployment Insurance (UI) systems of the States and those unemployed who are outside the UI system. The "covered" category is comprised of those who are currently collecting UI benefits--continued claimants--and those who have exhausted their benefits and remain jobless. The count of insured unemployed and the estimate of unemployed exhaustees are used in the development of LMA unemployment estimates.

For many unemployed individuals, however, the current spell of unemployment has not been immediately preceded by employment. Some individuals enter the labor market into the unemployed category from outside the labor force after having completed military service, family responsibilities, education, or other situations. These individuals are known as unemployed entrants.

Unemployed entrants can be further divided into two groups. One group includes individuals who enter the labor market for the first time and do not find jobs. These persons are defined by the Current Population Survey (CPS) as unemployed new entrants. The second group includes those who enter the labor market after a period of retirement from the labor force and are unable to find employment. These individuals are designated unemployed reentrants. The CPS defines unemployed reentrants as individuals who have previously been employed, but were out of the labor force prior to beginning their current job search. Even though these individuals have had some work experience, they are not typically eligible to receive unemployment insurance compensation.

For each LMA in the State, the sum of covered unemployed (claimants and unemployed exhaustees) plus the estimate of unemployed entrants equals the total unemployed for the area. Because of nonlinearity in the substate estimation procedures, the sum of LMA unemployment estimates may not equal the statewide total unemployment developed by the State estimation procedure. The LMA unemployment estimates are linked to the statewide estimate by a process called additivity. This process introduces conformity

between the LMA estimates and the statewide estimates by making the sum of all LMA estimates additive to the State level.

The LAUS program uses a simple linear additivity adjustment method, referred to as the handbook-share technique, to adjust LMA estimates to the statewide control totals for both employment and unemployment. This method consists of distributing the difference between the statewide estimate and the sum of the LMA estimates to all LMAs, based on each area's proportional share of the difference. The numeric relationship between the total of the LMA estimate to the statewide estimate is referred to as the additivity ratio. The resulting additivity ratios give an indication of whether employment or unemployment at the LMA level is being overestimated or underestimated. An additivity ratio of one indicates that the sum of the LMA estimates is in line with the State control total. This is often the situation with respect to employment estimates. Additivity ratios for unemployment, however, are generally greater than one. Figure 1 lists the additivity ratios for several States. It illustrates that the employment additivity ratios are generally close to 1 and the unemployment ratios are much higher than one.

Figure 1. Additivity ratios for selected States, January 2001, ranked by unemployment ratio

Labor Market Area	Employment Ratio	Unemployment Ratio
Louisiana	0.97	3.83
Arizona	0.96	2.81
Florida	0.98	2.69
New Hampshire	0.99	2.54
Maryland	1.01	2.37
Texas	0.99	2.21
Colorado	0.93	1.82

The current methodology for estimating entrants was developed in 1965. The input data included national annual average new entrant estimates from the Current Population Survey (CPS) from 1950-1964. At that time the Youth Population Ratio (YPR) was defined as the population of 14 to 19 years old divided by the population 20 years and older. The methodology was updated in 1983 to incorporate 1965-1981 CPS estimates and a new definition of the YPR--the population of 16 to 19 year olds divided by the population 20 years and older.

Two logarithmic equations were developed using a linear regression that used the YPR as the independent variable and the two entrant ratios, Y1 and Y2, as the dependent variables. In order to reduce the effect of irregular movement in the estimates, Y1 and

Y2 were smoothed by the application of a five-year moving average. The regression (sum of least squares method) yielded the following logarithmic equations:

$$Y1 = -.019885 + .0111151 \ln X \quad \text{(EQ 1)}$$

$$Y2 = -.3987 + .2271 \ln X \quad \text{(EQ 2)}$$

Where;

X = Youth Population Ratio (16-19/20+)

Y1 = Ratio of New Entrant Unemployed to the experienced civilian labor force

Y2 = Ratio of New Entrant Unemployed to the experienced unemployed

The product of equation one (the "a" factor) is multiplied by the seasonal a′ factor which produces the monthly A factor. The product of equation two (the "b" factor) is multiplied by the seasonal b′ factor which yields the monthly B factor. These A and B factors are then applied to the experienced labor force (labor force less new entrants) and the experienced unemployed (unemployed less new entrants) respectively. This step produces the entrant estimate which is added to the covered unemployment input to get total unemployment for each LMA prior to additivity adjustment.

The seasonal a′ and b′ factors add monthly seasonal behavior to each LMA entrant estimate. This is necessary because the two regression equations are based on annual average CPS estimates, which do not reflect monthly seasonal patterns. The seasonal factors are calculated annually by BLS using seasonal adjustment software (X-11 or X-12) and are derived from monthly CPS estimates.

There are some limitations with the current approach. The current model is a global linear trend model. This type of model has a fixed intercept and slope which does not allow the relationships between the inputs to vary over time. In addition, the data series used by the model to produce the regression coefficients have not been updated in over twenty years.

Another limitation of the current model approach is that unemployed reentrants are not directly included in the model formulation. Unemployed reentrants were not measured separately by the CPS until the 1967 CPS sample redesign when they were identified in the questionnaire. Nationally, reentrants are more numerous than new entrants, so their exclusion from the LAUS regression equations is most likely contributing to the underestimation of unemployment. Figure 2 shows National CPS new entrant and reentrant estimates for selected years since 1967.

Figure 2. U.S. annual average CPS unemployed new entrants and reentrants for selected years, not seasonally adjusted

Year	New Entrants	Reentrants
1967	396,000	945,000
1970	504,000	1,228,000

1975	823,000	1,892,000
1980	872,000	1,927,000
1985	1,039,000	2,256,000
1990	688,000	1,930,000
1995	579,000	2,525,000
2000	434,000	1,961,000
2001	459,000	2,031,000
2002	536,000	2,368,000
2003	641,000	2,477,000

New Models for Estimating New and Reentrants:

Two main difficulties exist in attempting to develop a model to estimate unemployed new entrants and reentrants. First, we are attempting to estimate an unknown value. Monthly new entrant and reentrant data are readily available at the State level from the CPS, but they are not of sufficient reliability to use directly. There are CPS data below the State level, but not for every LMA in each State, and these substate data also are not able to be used directly. Second, there are few other data series available to States to help identify and describe the behavior of new and reentrants. Research is continuing to try to develop additional data series that may be useful in estimating new entrant and reentrant unemployed.

The new methodology incorporates the CPS new entrant and reentrant State data and utilizes improved econometric modeling techniques. The proposed methodology also easily fits into the existing infrastructure of the LAUS State System (LSS).

The proposed models have evolved over time, as preliminary versions have been developed, tested, and rejected. Initially, we developed a single model that estimated total entrants for each LMA. This model relied on the current month's LMA data of experienced unemployed and employment for the explanatory variables and entailed distributing the statewide CPS new entrants and reentrants to the LMA for the dependent variable. While the model performed well, it was logistically very complex to develop models for every LMA in a State and then incorporate the model programming into the current LSS software. A single State model was then developed. The statewide model estimate of unemployed new entrants and reentrants is then distributed to the LMAs. The estimates using the individual LMA model were not significantly different from those produced using the single State model and distributing the results to the LMAs.

The new model follows the basic form of the model created in 1983, but has been updated and improved. The proposed model uses a stochastic nonlinear estimation process rather than a global linear procedure. A stochastic, or random, coefficient is one whose value is allowed to change over time. In this model, the values of the model coefficients change from month to month as the models are updated with information from current observations.

The model uses the monthly statewide CPS new entrant and reentrant estimates as the dependent variable. To remove any volatility in the monthly estimates, a 5-year weighted average for each month is used as the dependent variable. The weights place greater emphasis on the more recent observations and lesser emphasis on the older and less relevant observations.

The new model makes use of the same two explanatory variables, experienced labor force (L_t) and experienced unemployed (U_t), as in the current model. The Youth Population Ratio (YPR) is also retained as a concomitant to explain the change in the monthly coefficients. The seasonal factors, a′ and b′, are no longer necessary since the model is using actual monthly data for both the dependent and explanatory variables.

$$ENT_t = \gamma_{1t}L_t + \gamma_{2t}U_t \quad \text{(EQ 3)}$$

Where:

ENT_t = Statewide CPS entrants 5-year monthly weighted average

$$\gamma_{1t} = \pi_{10} + \pi_{11}(YPR) + \varepsilon_{1t} \quad \text{(EQ 4)}$$

$$L_t = CESEM + (CNTWOER + UCFE) \quad \text{(EQ 5)}$$

$$\gamma_{2t} = \pi_{20} + \pi_{21}(YPR) + \varepsilon_{2t} \quad \text{(EQ 6)}$$

$$U_t = (CNTWOER + UCFE) \quad \text{(EQ 7)}$$

and:

CESEM = nonfarm wage and salary employment from the Current Employment Statistics program

CNTWOER = continued claims without earnings for the reference week of the 12th of the month, from the State Unemployment Insurance (UI) system

UCFE = continued claims without earnings for Federal employees

YPR = Youth Population Ratio

The above model was then broken down into two separate models, one for new entrants and one for reentrants. The sum of the estimates developed by the two models produces the same results as those from the single model; however, use of two models makes it easier to incorporate the results into the current LSS structure. The separate statewide models are described below:

$$NEWEN_t = \gamma_{1t}L_t + \varepsilon_{1t}$$

(EQ 8)

Where:

$NEWEN_t$ = 5-year average statewide monthly CPS new entrants

$\gamma_{1t} = \pi_{10} \dot{+} \pi_{11}(YPR) + \varepsilon_{1t}$

(EQ 9)

$$REEN_t = \gamma_{2t}U_t + \varepsilon_{2t}$$

(EQ 10)

Where:

$REEN_t$ = 5-year average statewide monthly CPS reentrants

$\gamma_{2t} = \pi_{20} \dot{+} \pi_{21}(YPR) + \varepsilon_{2t}$

(EQ 11)

Distribution procedure:

Two approaches were examined for distributing the statewide 5-year weighted average of new entrants and reentrants to the State's handbook method areas. The first approach tested used the share of the area's experienced unemployed to the State total experienced unemployed. The second approach used the shares of the area's working age population to the State working age population totals.

The advantage of using the first approach--the experienced unemployed share approach--is that it uses the latest current monthly data to allocate the entrants estimates to the handbook areas.

$$[(\text{Exp Unemp}_{LMA_i} / \dot{\Sigma}\text{Exp Unemp}_{LMA_i}) \text{ x Entrants}_t] = LMA_i \text{ Entrants}$$

(EQ 12)

For most of the LMAs examined, the LAUS unemployment rate produced using this method followed the same trend as the current LAUS unemployment rates for the period of January 1996 to November 2002. However, there were several examples of LMAs in South Dakota in which the trend was exaggerated or differed completely from the current unemployment rates. Testing of additional States revealed similar inconsistencies when using the first distribution approach.

The second approach--the population share--uses annual population data from the most recent census, survived forward to the current year. The population data have a slightly stronger relationship with the monthly new entrant and reentrant estimates than the experienced unemployed, as indicated by monthly correlation coefficients. The population data also have the capability of being broken out into specific age groups that can be applied separately to new entrants and reentrants.

For new entrants, the handbook area's proportion of 16-19 year old population group to the State total of 16-19 year old population is used, and for reentrants, the handbook

area's proportion of 20 years and older population to the State total of 20 years and older population is used.

1. Reentrants

The statewide reentrants estimates are distributed to the handbook areas based on each area's share of the statewide 20 years and older population.

$$[(\text{Pop } 20+_{LMAi} / \sum \text{Pop } 20+_{LMAi}) \times REEN_t] = LMA_i \text{ reentrants} \quad \text{(EQ 13)}$$

2. New Entrants

The statewide new entrants estimates are distributed to the handbook areas based on each area's share of the statewide 16-19 year old population.

$$[(\text{Pop } 16\text{-}19_{LMAi} / \sum \text{Pop } 16\text{-}19_{LMAi}) \times NEWEN_t] = LMA_i \text{ new entrants} \quad \text{(EQ 14)}$$

The appendix contains comparison charts graphing the LAUS unemployment rates developed using the two methods described above for all handbook areas in Idaho (pages A1-A6), New Jersey (pages B1-B2), New Mexico (C1-C5), and South Dakota (pages D1-D11) from January 1996 to November 2002. It also charts the LAUS unemployment rates that were produced using the current methodology. (Please note that these estimates were produced using 2001 benchmarked data.)

Incorporation into the LAUS States System (LSS)

The statewide estimates for new entrants and reentrants derived from the model for each State will be developed by the LAUS program office each month. States will retrieve their unemployed new entrant and reentrant estimates via EUS Direct in the same manner as they retrieve all other LSS inputs provided by the LAUS program office.

Once the statewide model estimates are loaded into LSS, they will be distributed to each handbook area by the LMA population share method discussed in the previous section. The method utilizes the existing age group population data available in the census unemployment table and the age group survival rates in the survival table of the LSS database to develop the 16-19 years old population groups and 20 years and over population groups for each handbook area and the State total. Similar to the handbook share method used in the additivity process, each population group for an area is divided by the State total population group to create a LMA population share that is applied to the State's model new entrant and reentrant estimates to produce the handbook areas new entrant and reentrant estimates.

The handbook area unemployed new entrant and reentrant data are then inserted into the handbook unemployment estimation procedure. The current procedure consists of eleven line items that produce the total handbook unemployment for a given LMA.

Line 5: Total UI Continued Claims less Earnings
Line 6: Total UCFE Claims less Earnings
Line 7: Total Railroad Claims less Earnings
Line 9: Exhaustee unemployment
Line 10: Noncovered Agricultural Unemployment
Line 11: Unemployment, Excluding Entrants (sum of the above lines)
Line 12: B Factor
Line 13: New and Reentrant Unemployment Related to the Experienced Unemployed
Line 14: A Factor
Line 15: New and Reentrant Unemployment Related to the Experienced Labor Force
Line 16: Total Unemployment (sum of line 11, 13, and 15)

As a result of using the new method for producing entrant estimates, some of these line item will no longer be necessary. The handbook lines used to construct line 11 will remain the same as described above, the sum of lines 5, 6, 7, and 9. (Line 8 was omitted in a prior revision of the handbook procedure.)

The LMA population-shared estimates of reentrants will directly replace line 13, and the shared estimates of new entrants will directly replace handbook line 15. Since lines 13 and 15 will now be developed independently of the handbook procedure, line 12, B factor, and line 14, A factor, are no longer needed.

Line 12: (omitted)
Line 13: Reentrants
Line 14: (omitted)
Line 15: New Entrants

Total handbook unemployment will remain the sum of lines 11, 13 and 15.

$$\text{Line11}_{\text{LMA}i} + \text{Line13}_{\text{LMA}i} + \text{Line15}_{\text{LMA}i} = \text{Line16}_{\text{LMA}i} \quad \text{(EQ 15)}$$

Effects on Unemployment Estimates

The incorporation of the new estimation method into the handbook procedure affects the total handbook unemployed in two ways: 1) it raises the number of entrants for each LMA, and 2) it redistributes LAUS unemployment since the new entrant and reentrant estimates for each LMA are based on its shares of the working age population.

The increased level of entrants in the handbook area attributed to the new method is seen in Charts 1-4, which show the entrants estimates for four handbook areas: Boise, Idaho; Newark, New Jersey; Albuquerque, New Mexico; and Sioux Falls, South Dakota, for the period of January 1996 to November 2002. During this period, the difference between

the current method and the new method for Boise averaged 1,997, Newark's entrants level increase averaged 17,064, Albuquerque averaged 7,127 and Sioux Falls averaged 665. As expected, the same was true for each State when the 5-year weighted average CPS entrant estimates are introduced. Charts 5-8 compare the number of entrants produced by the current method and the new method at the State level for Idaho, New Jersey, New Mexico, and South Dakota.

The increased level of entrants in turn raised the level of total handbook unemployed by the same amount, since the handbook unemployed is the sum of the experienced unemployed and entrants. Charts 9-12 illustrate the increase in the level of handbook area unemployed for same selected handbook areas, and Charts 13-16 show the effect at the State level.

Increases in handbook unemployment resulted in lower unemployment additivity ratios for each of the States studied. Figure 3 lists the monthly unemployment additivity ratios produced using the current method and the new method for Idaho, New Jersey, New Mexico, and South Dakota from January 1996 to November 2002. For this period, Idaho's monthly additivity ratio averaged 1.66 using the current method and 1.24 using the new method. New Jersey's current method averaged 1.40 compared to 0.95 for the new method. New Mexico's current method averaged 2.41 and the new method was 1.29. South Dakota's current method averaged 2.30, while the new method averaged 1.43.

The new method redistributes the LAUS unemployed among the handbook areas compared to the current estimates. Since the 5-year weighted average of the CPS entrants data are allocated to the handbook areas based their working age populations, sparsely populated areas receive less of the statewide entrant estimates and densely populated area receive more. This change in the handbook unemployment level influenced the allocation of the statewide LAUS unemployment estimates that are distributed through the additivity process. Charts 17-20 graph the LAUS unemployed for the same selected handbook areas used in the previous examples.

For the most part the large increases in the handbook unemployed are reduced by the additivity process. For example, Newark's average difference between the handbook unemployed using current method and the new method for the January 1996 to November 2002 period was 17,064. The differences between Newark's LAUS unemployment rates ranged between 0.0 and 0.17 percentage point and averaged 0.07 point for the same period.

However, changes to the current LAUS unemployment rates are more pronounced for some areas. For the January 1996 to November 2002 period, the Luna County, New Mexico, handbook area averaged 128 entrants using the current method. (See Chart 21.) The use of the new method caused an average increase of 99 entrants for that period. The differences between Luna County LAUS unemployment rates produced using the two methods ranged between 2.26 and 13.22 percentage points and averaged 8.08 points. The current LAUS rate ranged from a low of 11.2 percent in September 2002 to a high of 40.4 percent in April 1996. Using the new method to develop the LAUS estimates for Luna

County resulted in a low of 9.0 percent in September 2002 and a high of 28.2 percent in April 1996. (See Chart 22.)

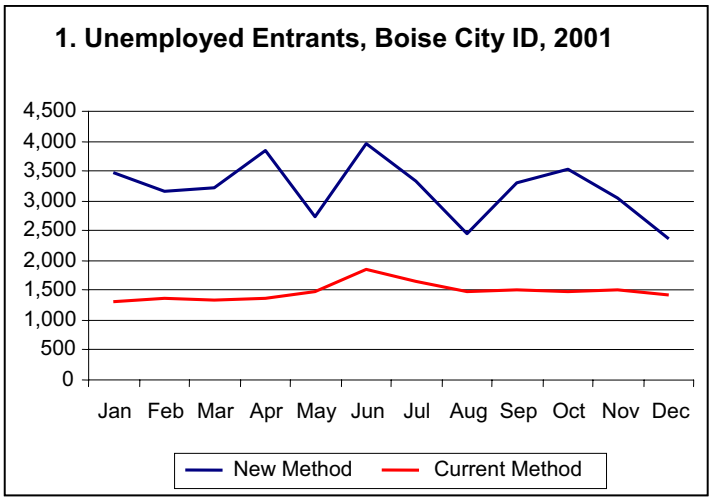
The changes in pages A1 through A6 present unemployment rates for labor market areas in Idaho developed using the current methodology and with the proposed new model. Similar charts for New Jersey are in pages B1 and B2; New Mexico, C1 through C5; and South Dakota, D1 through D11.

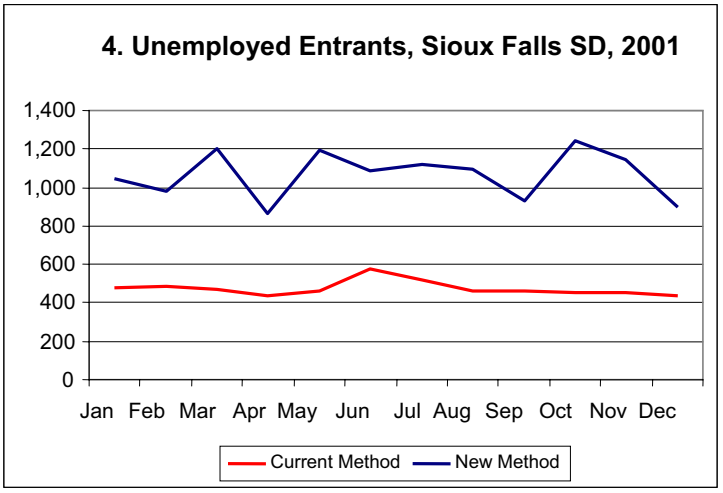
Summary

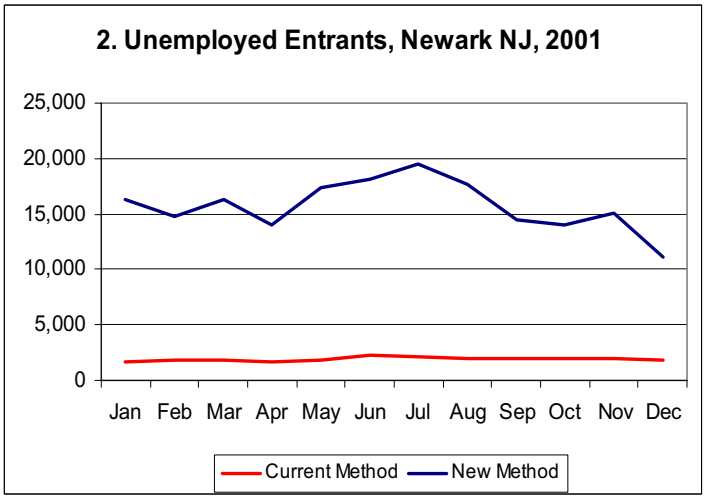
The proposed estimation procedures for developing unemployed new entrant and reentrant estimates are an improvement over the existing procedures in several ways. First, the proposed method makes use of a 5-year average of the latest monthly unemployed new entrant and reentrant data from the CPS for each State, while the current procedure relies on national annual average CPS relationships. Second, the proposed method makes use of a more sophisticated econometric technique than the current method. The proposed model uses a stochastic technique that allows the model coefficients to change each month as new information is added to the model. The proposed model also can produce error measures and provide one-month ahead predictions. The current method utilizes a global linear model with fixed coefficients that have not been updated in some time.

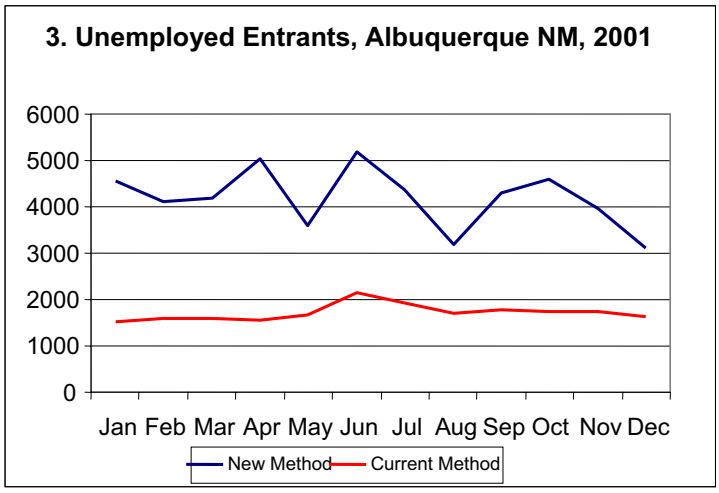
The estimates produced using the new method increase the level of handbook unemployment and thus improve the unemployment additivity ratios. The sum of the State LMA unemployment estimates are now more in line with the State LAUS model unemployment estimates. Although the new method increases the level of handbook unemployment for all areas and changes the distribution of the LAUS model unemployment for some areas, the new estimates retain the unemployment trends of the current estimates. The new procedures were also developed so as to be the least disruptive to the current LSS programming structure and the monthly production workload.

Charts 1-4. Unemployed entrants for selected handbook areas, 2001

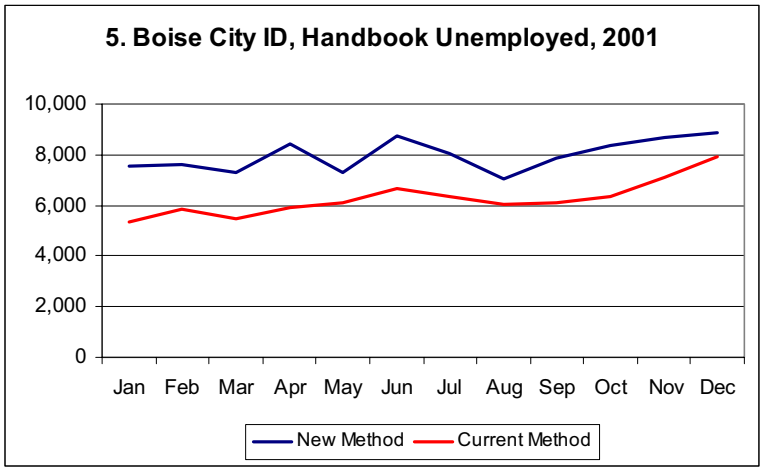


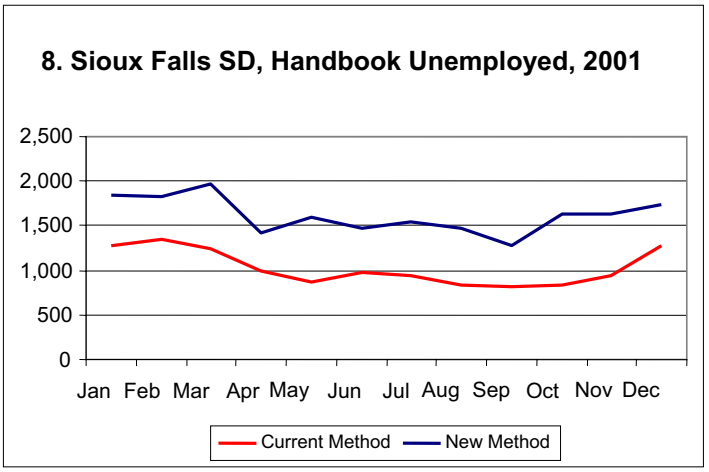


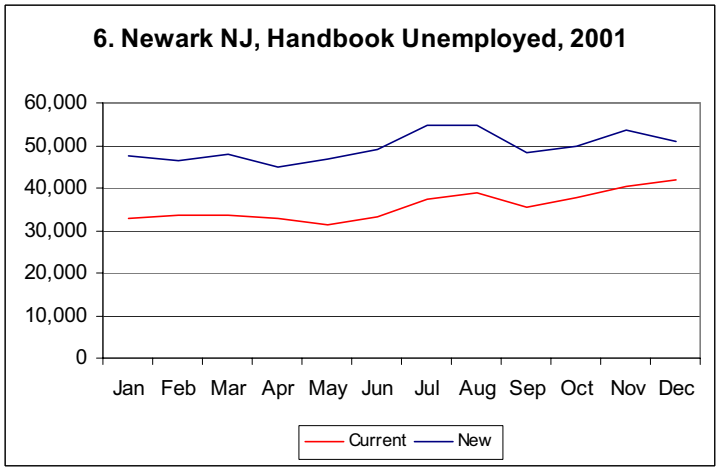




Charts 5-8. Handbook unemployed, selected states, 2001







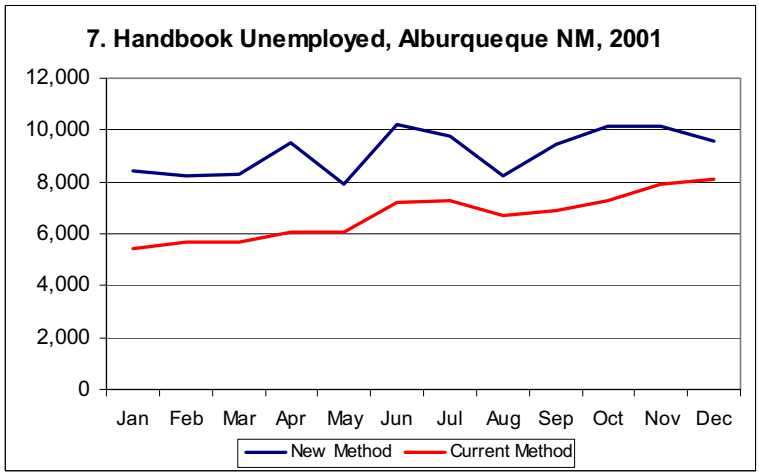
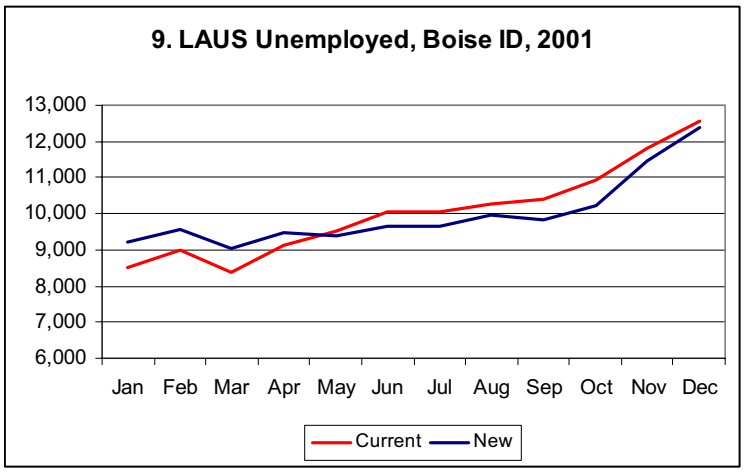
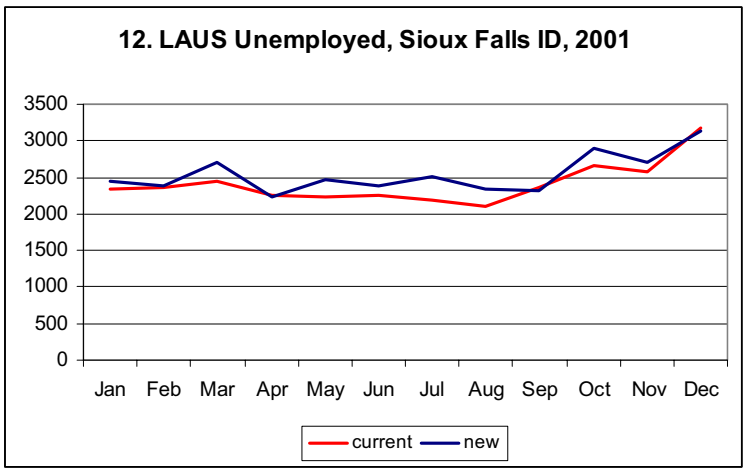


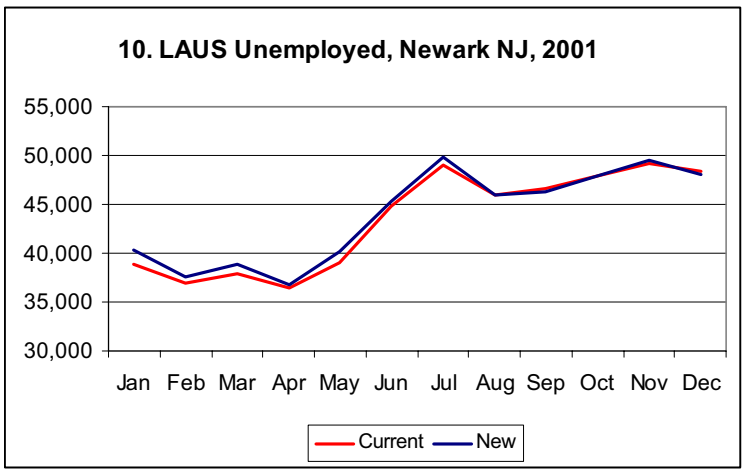
Figure 3. Monthly unemployment additivity ratios, selected states, 2001

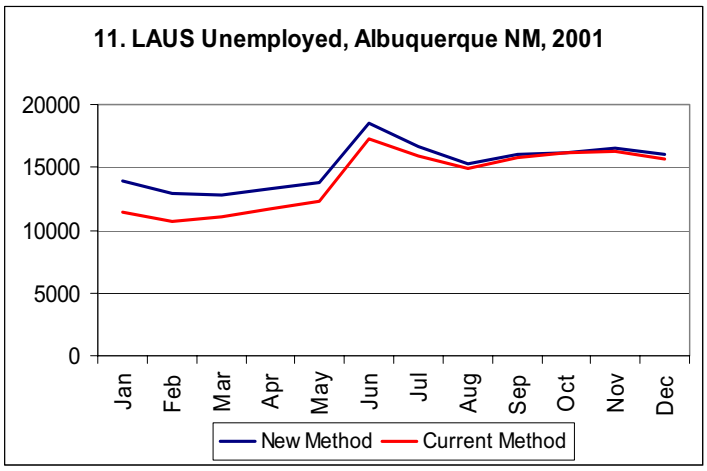
2001	Idaho			New Jersey			New Mexico			South Dakota		
	Current	New Method	*diff.*	Current	New Method	*diff.*	Current	New Method	*diff.*	Current	New Method	*diff.*
Jan	1.56	1.22	*-0.34*	1.18	0.85	*-0.33*	2.11	1.16	*-0.95*	1.83	1.33	*-0.50*
Feb	1.51	1.26	*-0.25*	1.10	0.81	*-0.29*	1.87	1.06	*-0.81*	1.77	1.30	*-0.47*
Mar	1.51	1.24	*-0.27*	1.13	0.81	*-0.32*	1.95	1.25	*-0.70*	1.99	1.38	*-0.61*
Apr	1.51	1.12	*-0.38*	1.11	0.82	*-0.30*	1.93	1.08	*-0.85*	2.27	1.58	*-0.69*
May	1.53	1.28	*-0.25*	1.25	0.86	*-0.39*	2.05	1.23	*-0.81*	2.59	1.55	*-1.04*
Jun	1.49	1.10	*-0.38*	1.34	0.92	*-0.42*	2.40	1.26	*-1.14*	2.32	1.62	*-0.70*
Jul	1.55	1.20	*-0.35*	1.31	0.91	*-0.40*	2.18	1.32	*-0.86*	2.32	1.62	*-0.69*
Aug	1.61	1.42	*-0.20*	1.18	0.84	*-0.34*	2.21	1.21	*-1.00*	2.53	1.60	*-0.94*
Sep	1.68	1.25	*-0.43*	1.31	0.96	*-0.35*	2.29	1.25	*-1.04*	2.89	1.80	*-1.09*
Oct	1.70	1.22	*-0.48*	1.27	0.96	*-0.31*	2.21	1.21	*-1.00*	3.21	1.78	*-1.42*
Nov	1.64	1.32	*-0.32*	1.22	0.93	*-0.29*	2.06	1.23	*-0.83*	2.76	1.66	*-1.10*
Dec	1.55	1.39	*-0.15*	1.16	0.94	*-0.22*	1.93	1.33	*-0.60*	2.48	1.80	*-0.68*
Avg	*1.57*	*1.25*	*-0.32*	*1.21*	*0.88*	*-0.33*	*2.10*	*1.21*	*-0.88*	*2.41*	*1.59*	*-0.83*

Charts 9-12. LAUS unemployed, selected states, 2001

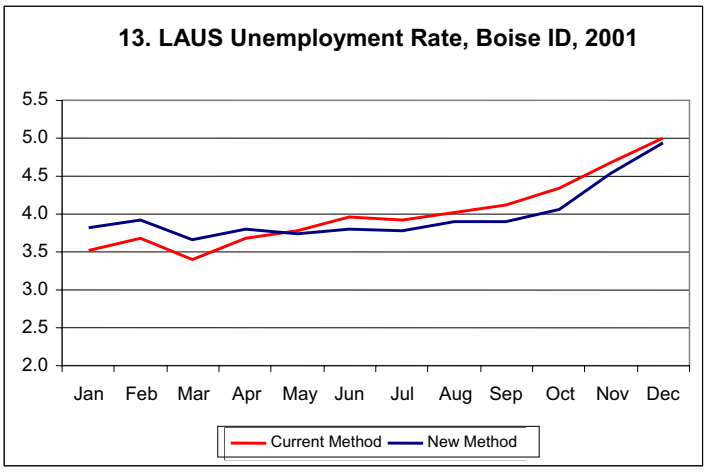


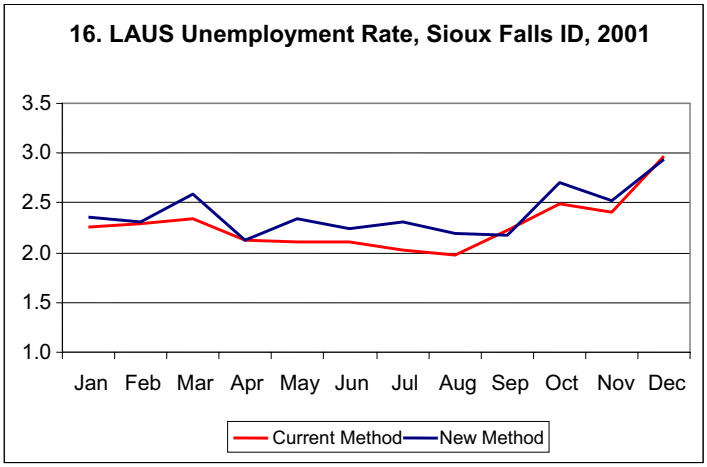


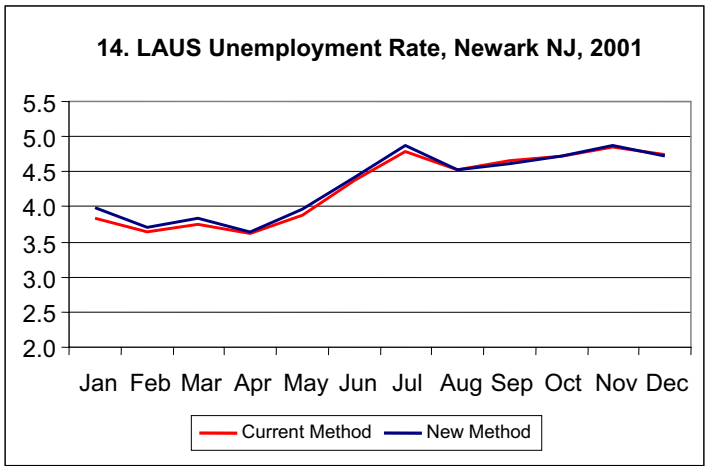


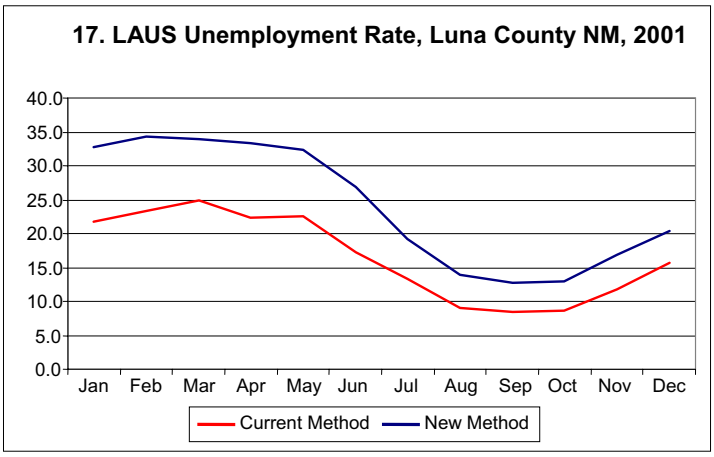


Charts 13-17. LAUS unemployment rates, selected states, 2001









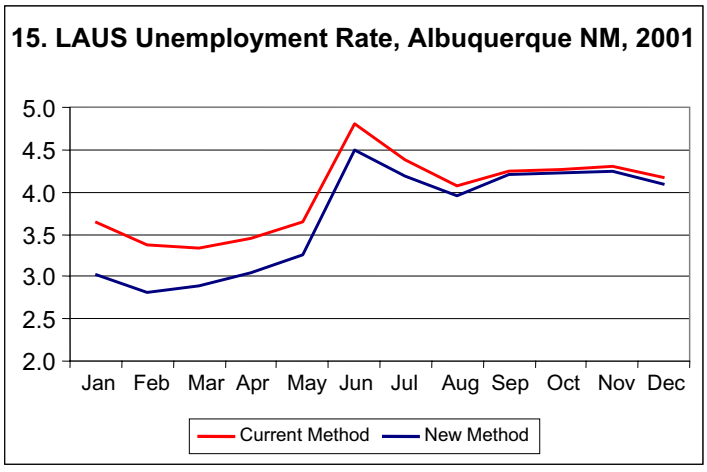
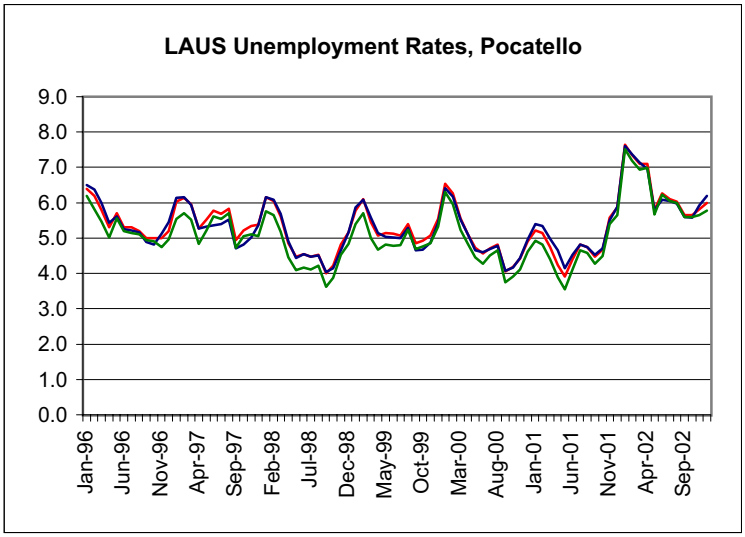


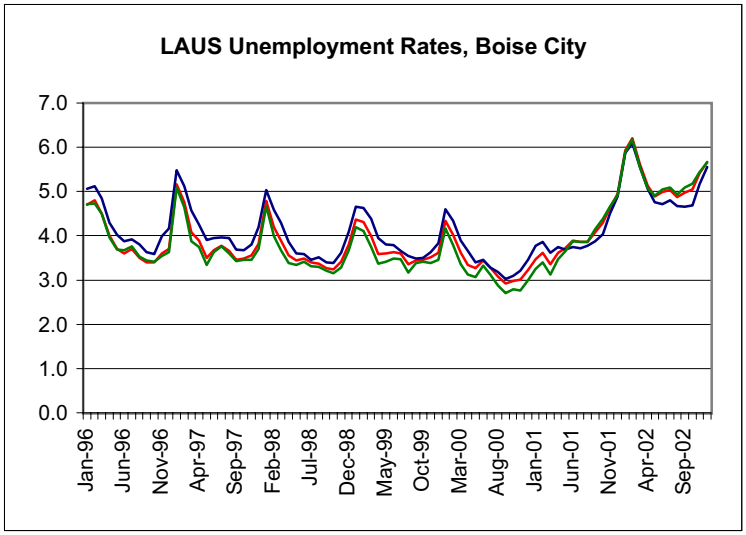
Figure 4. Comparison of LAUS March/April 2000 to Census 2000, Albuquerque MSA and Luna county, New Mexico

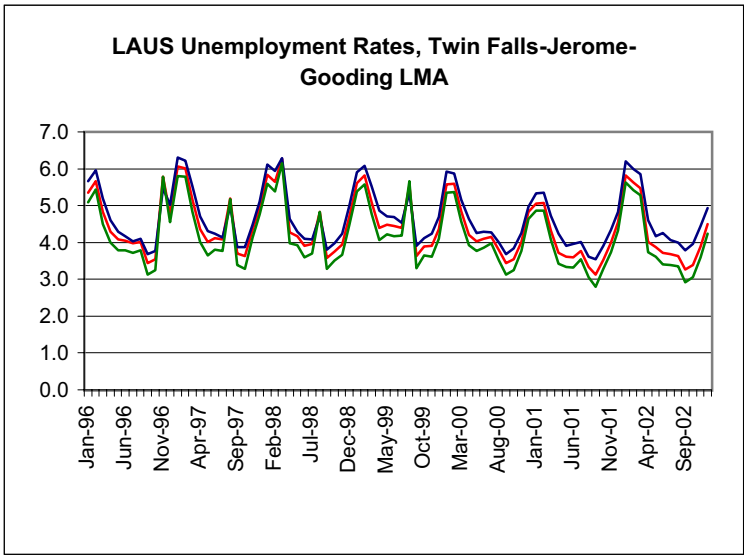
Albuquerque	Labor Force	Employment	Unemployment	Unemployment Rate
2000 Census	349,142	328,521	20,621	5.9%
March/April 2000 LAUS- current method	373,224	361,836	11388	3.1%
March/April 2000 LAUS- new method	375,564	361,836	13728	3.7%

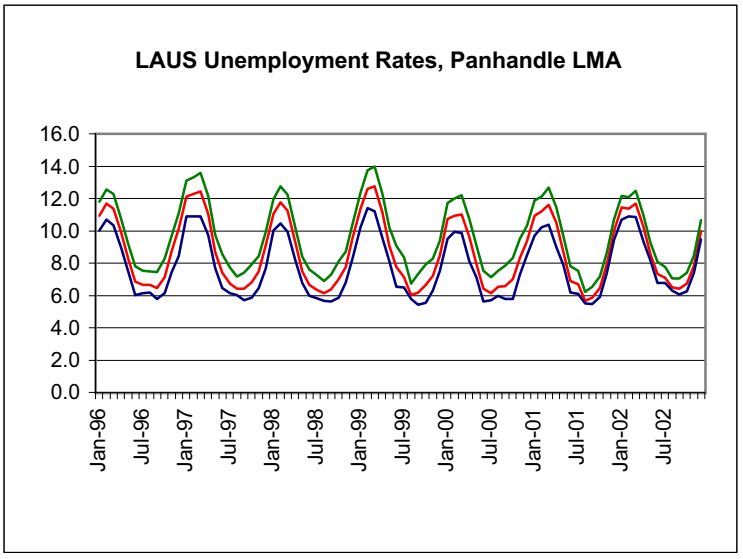
Luna county	Labor Force	Employment	Unemployment	Unemployment Rate
2000 Census	8,633	7,161	1,472	17.1%
March/April 2000 LAUS- current method	11,371	7,818	3,553	31.2%
March/April 2000 LAUS- new method	9,874	7,818	2,056	20.8%

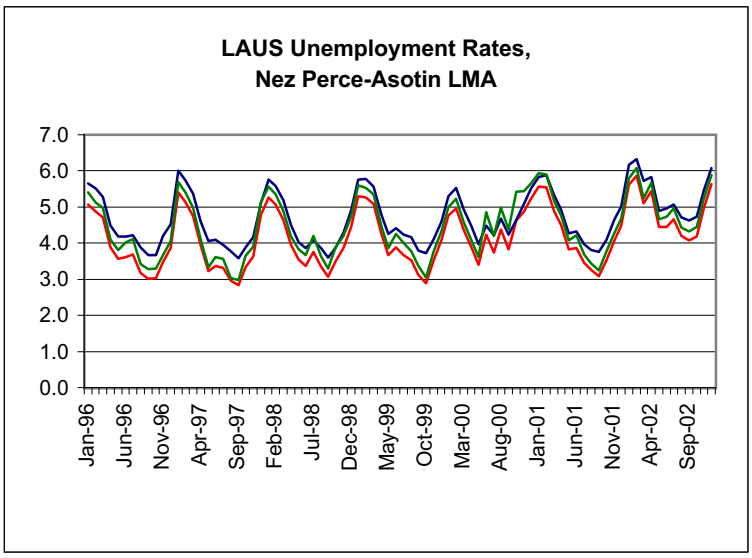
Idaho
Unemployment Rates

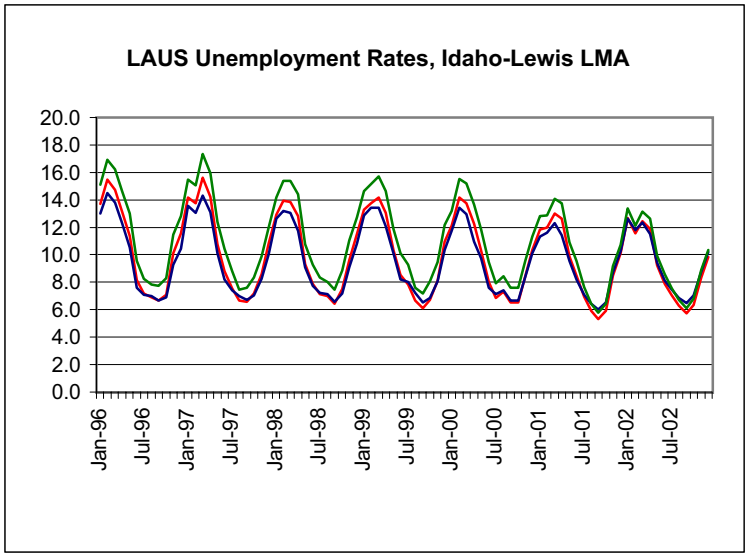








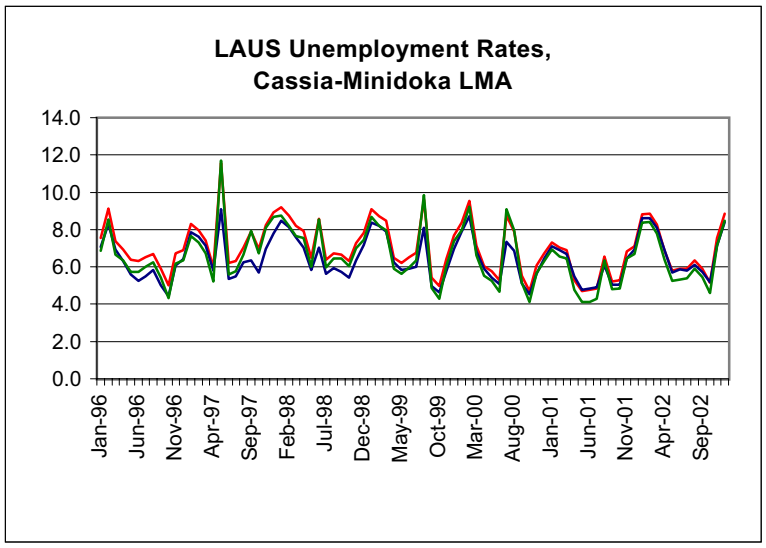


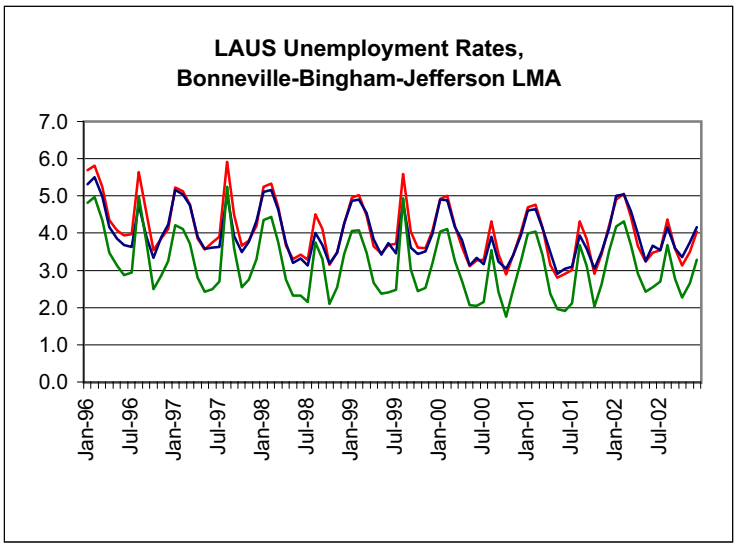


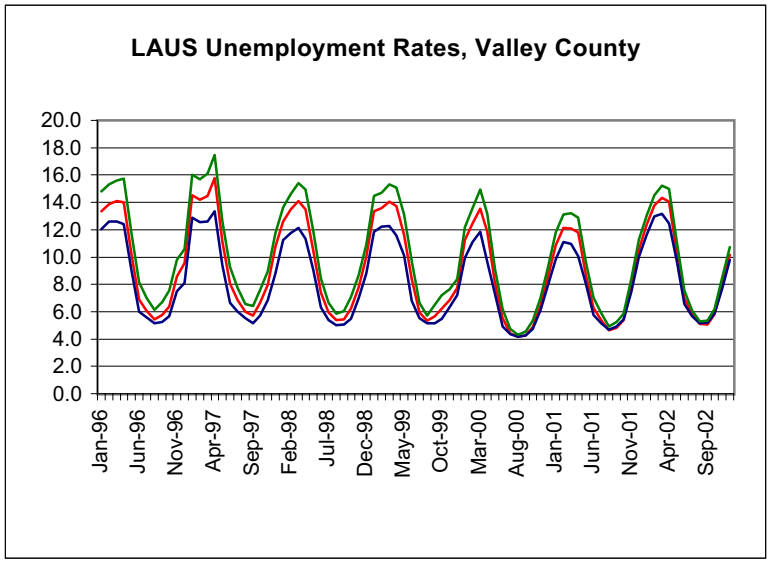
Legend:

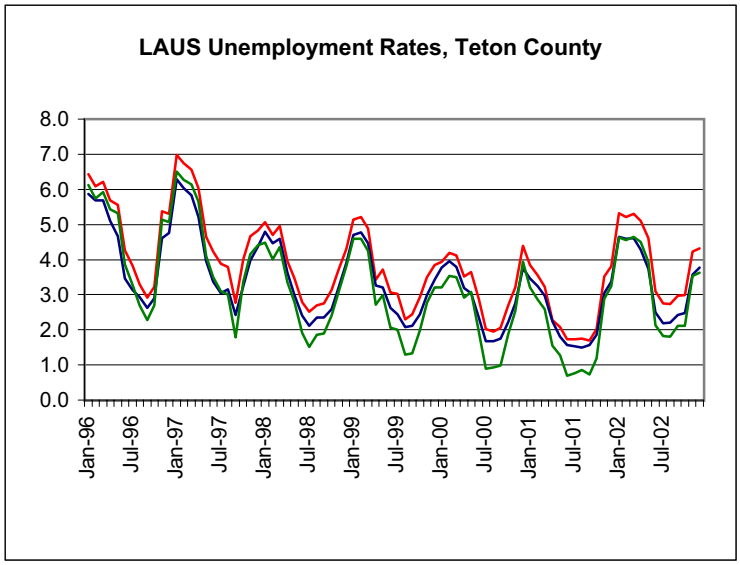
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

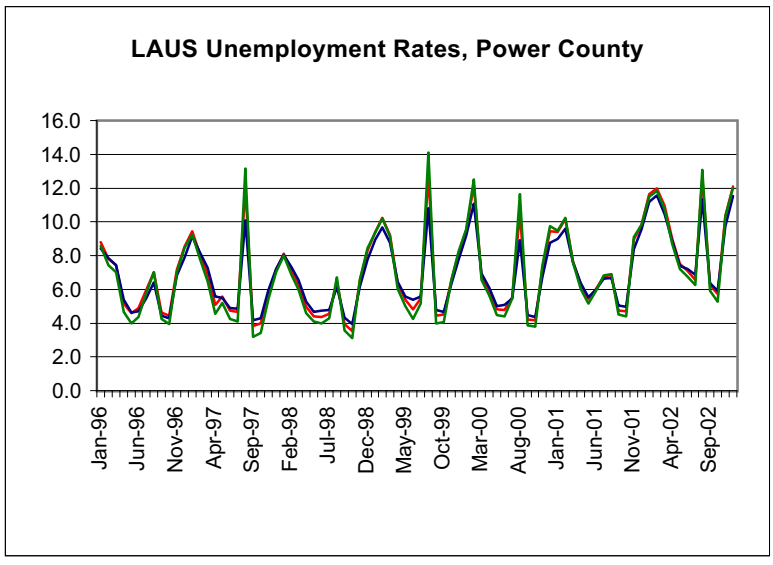
Idaho
Unemployment Rates

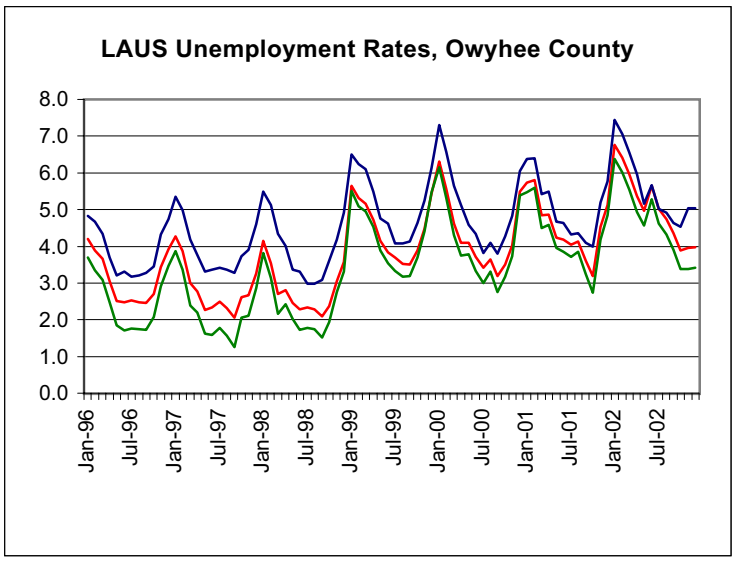






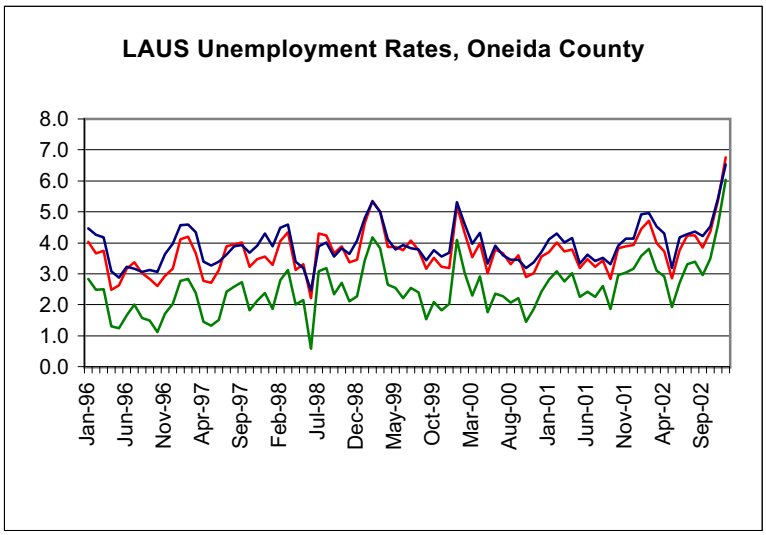


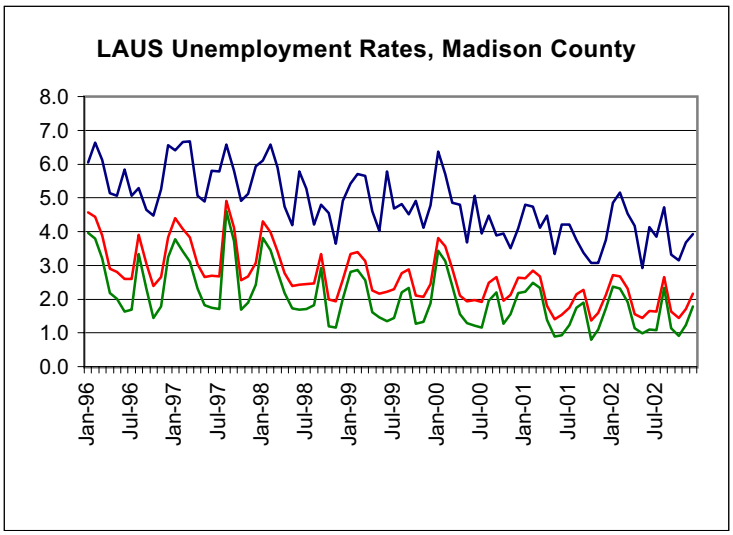


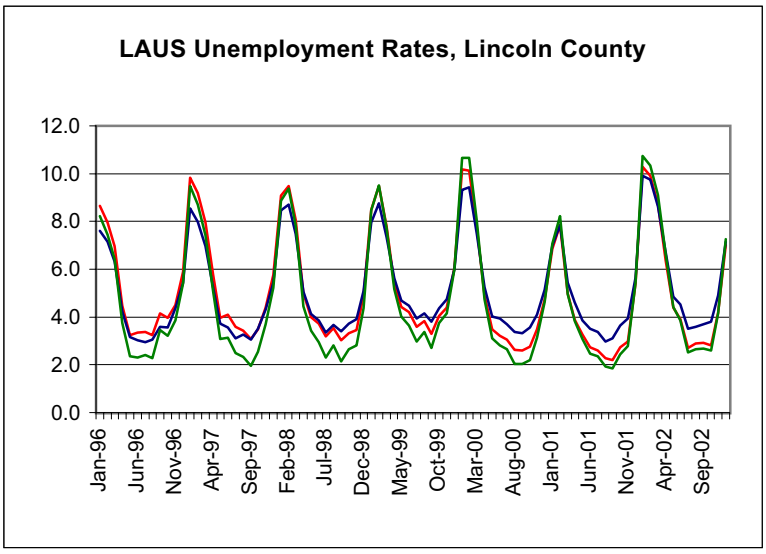


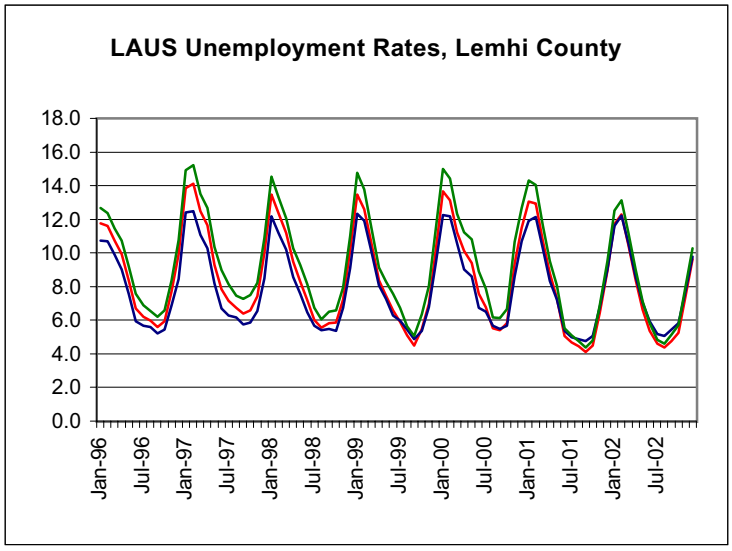
Legend:
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

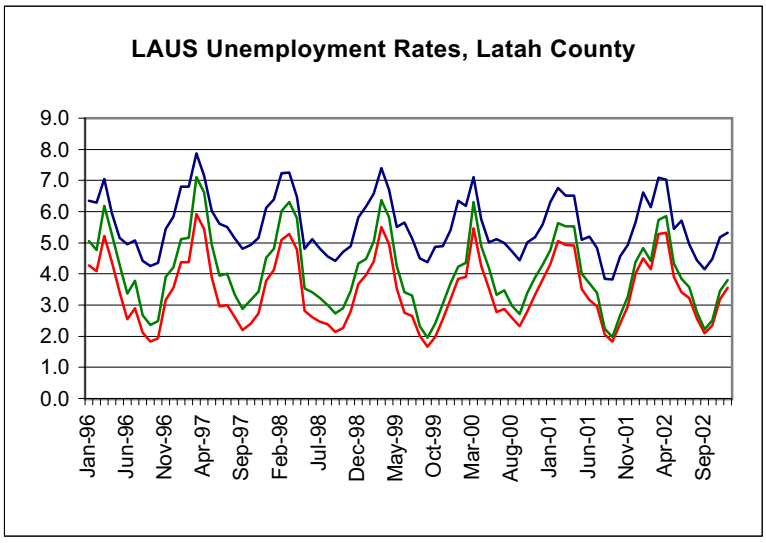
Idaho
Unemployment Rates

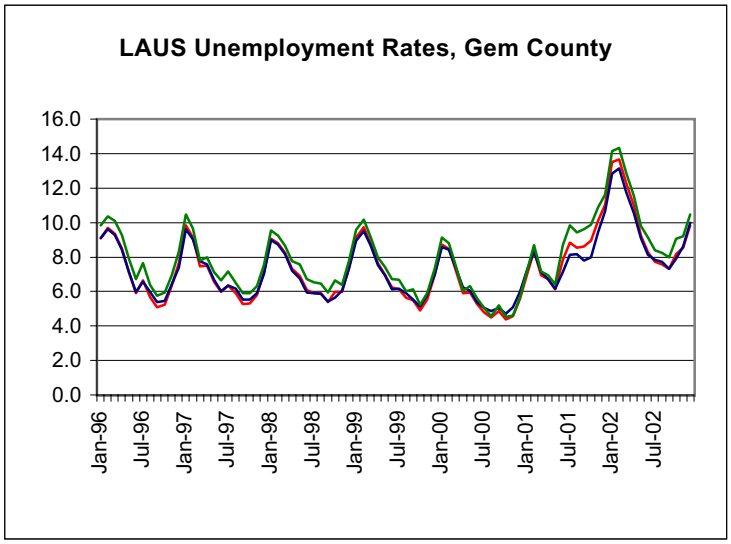








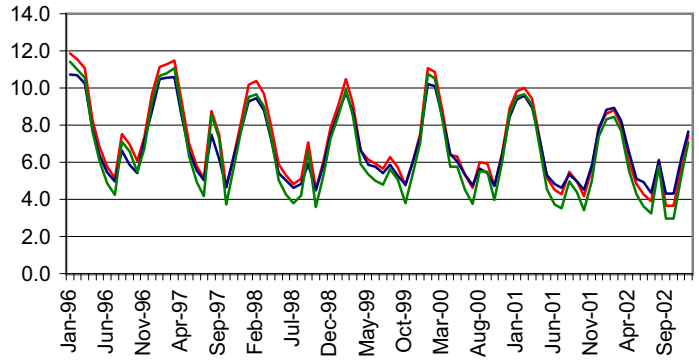




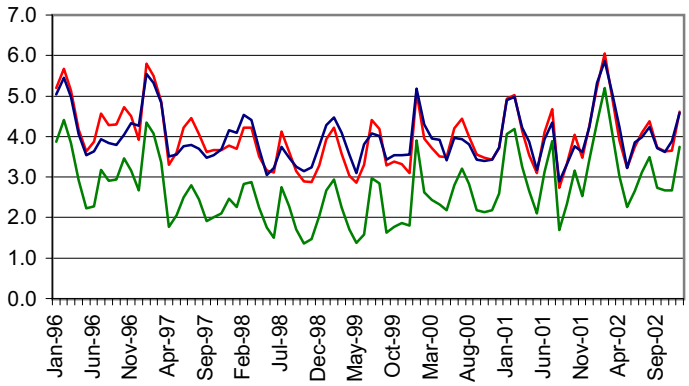
Legend:
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

Idaho
Unemployment Rates

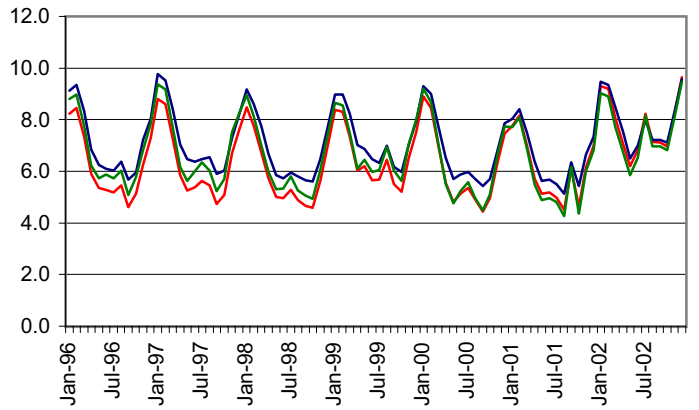
LAUS Unemployment Rates, Fremont County



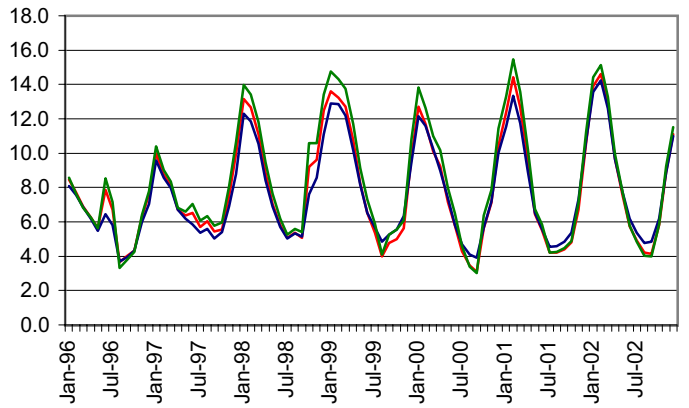
LAUS Unemployment Rates, Franklin County



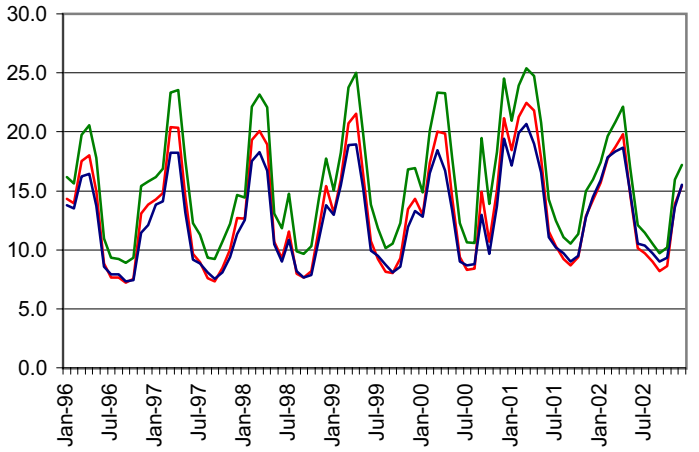
LAUS Unemployment Rates, Elmore County



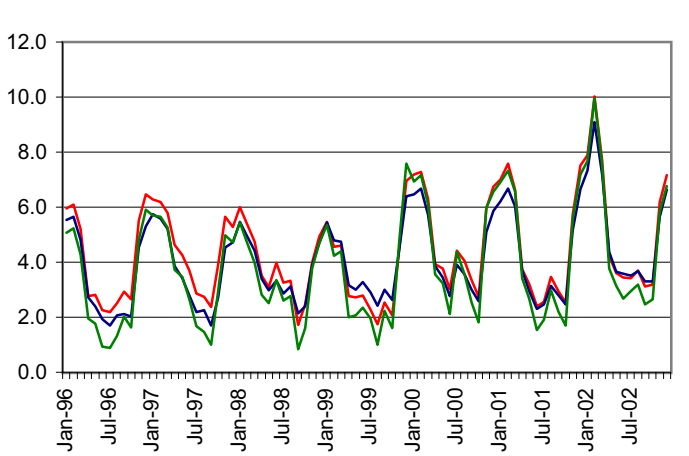
LAUS Unemployment Rates, Custer County



LAUS Unemployment Rates, Clearwater County



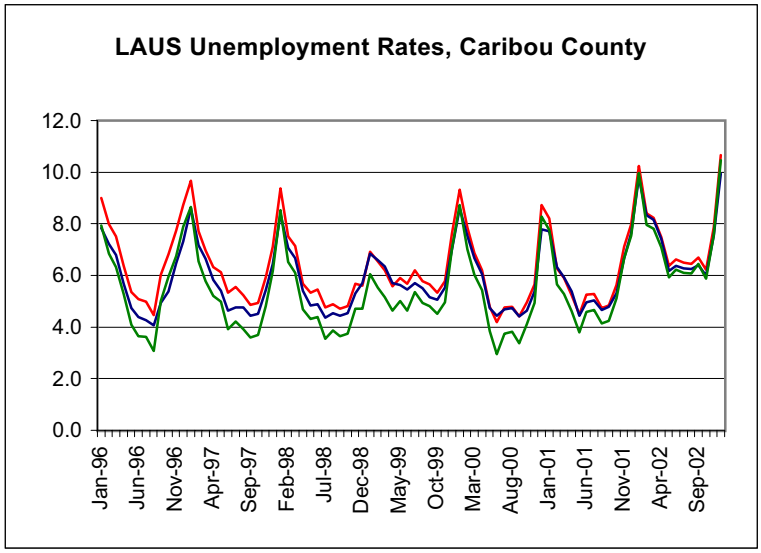
LAUS Unemployment Rates, Clark County

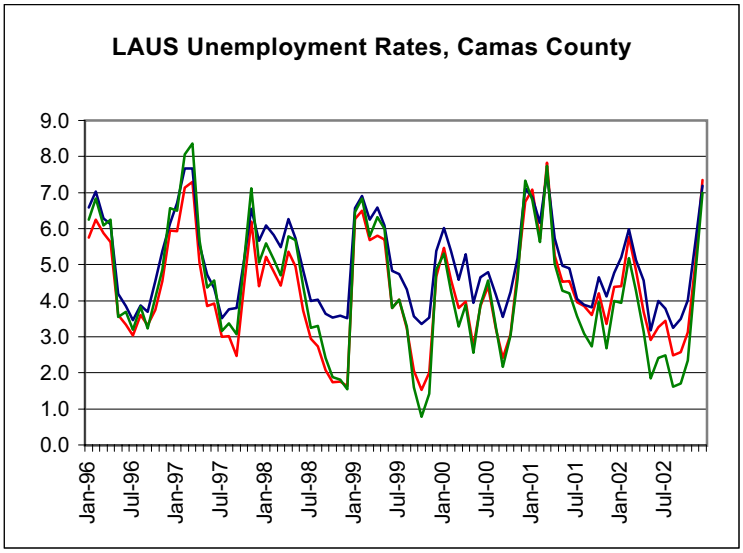


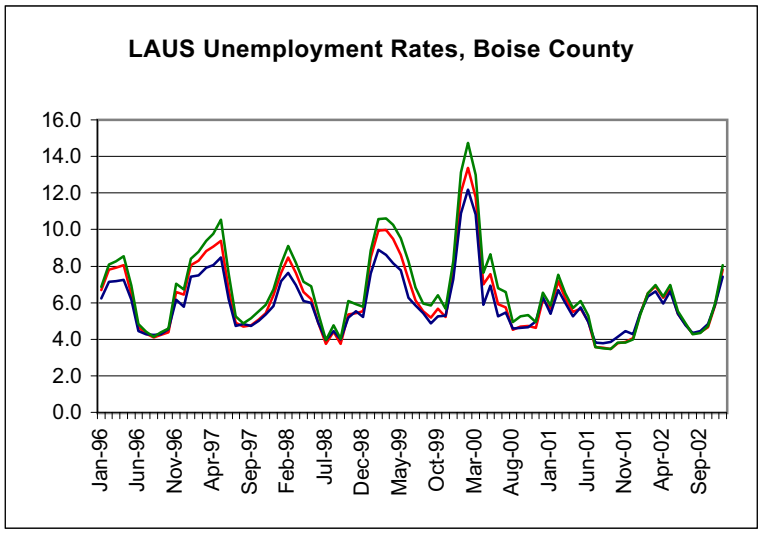
Legend:

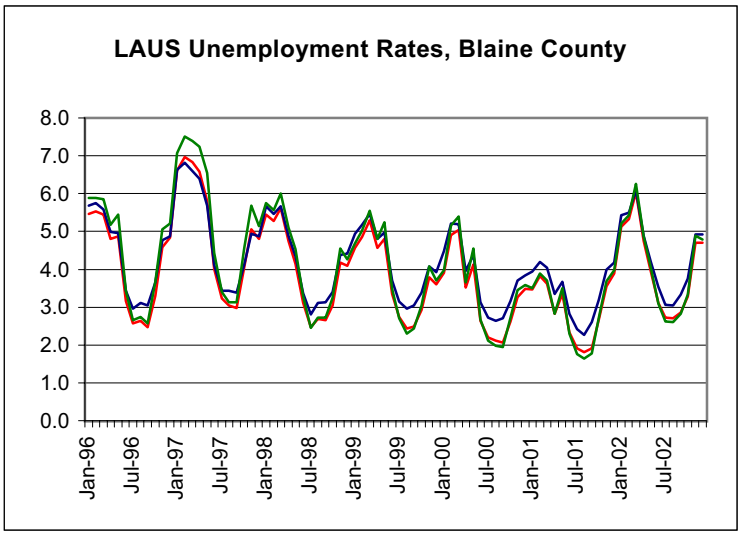
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

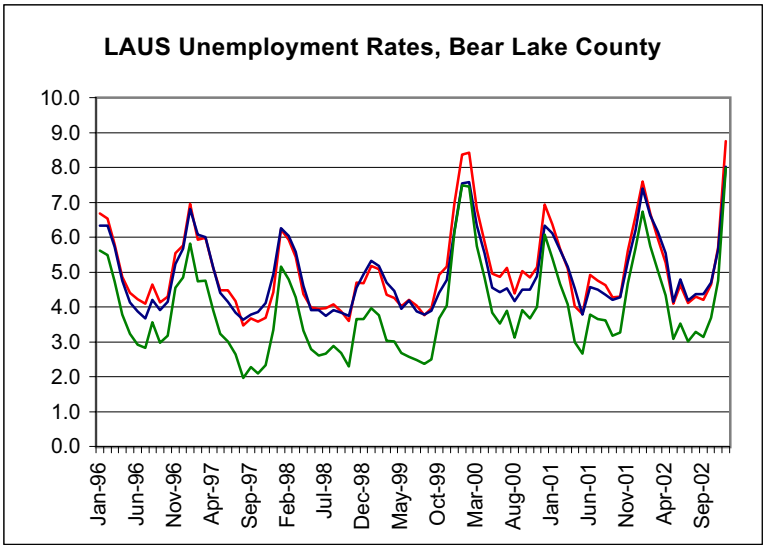
Idaho
Unemployment Rates

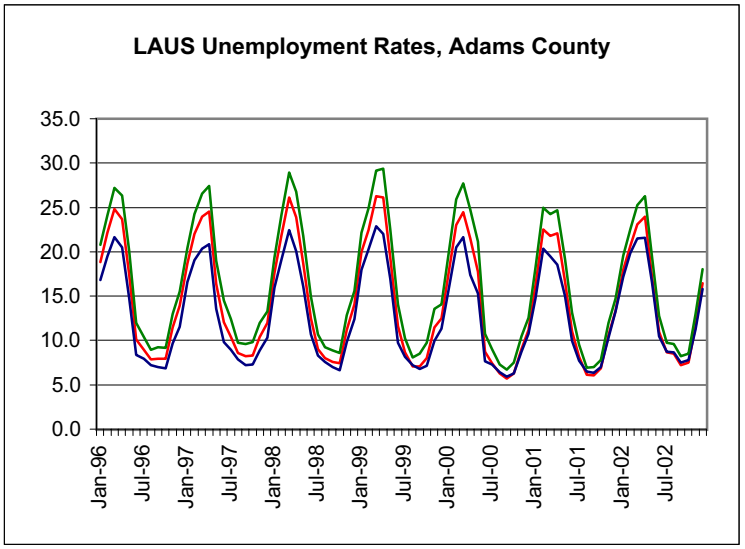






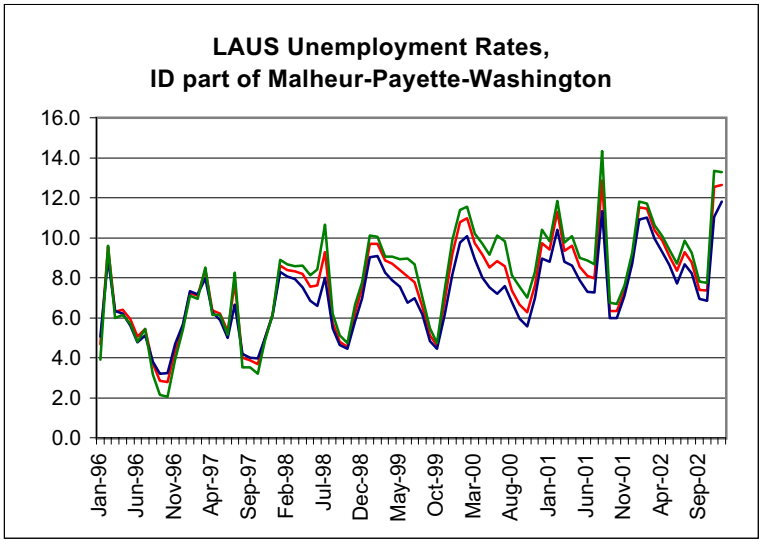






Legend:
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

Idaho
Unemployment Rates



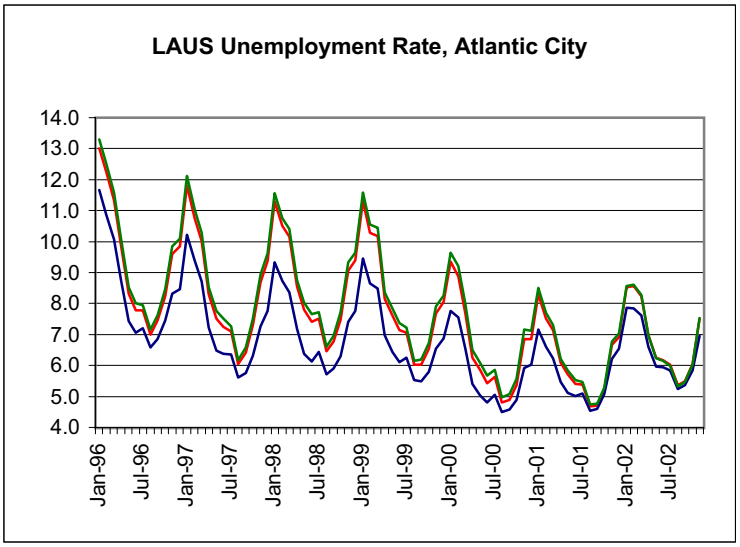
Legend:

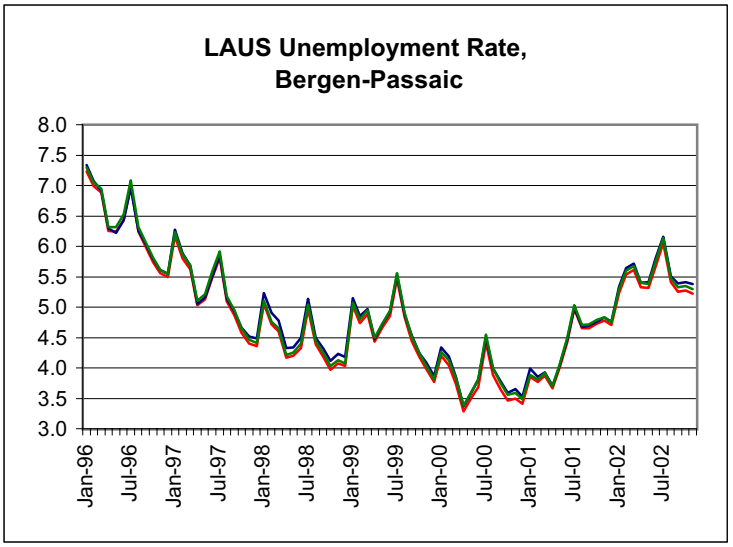
Current entrants estimation method

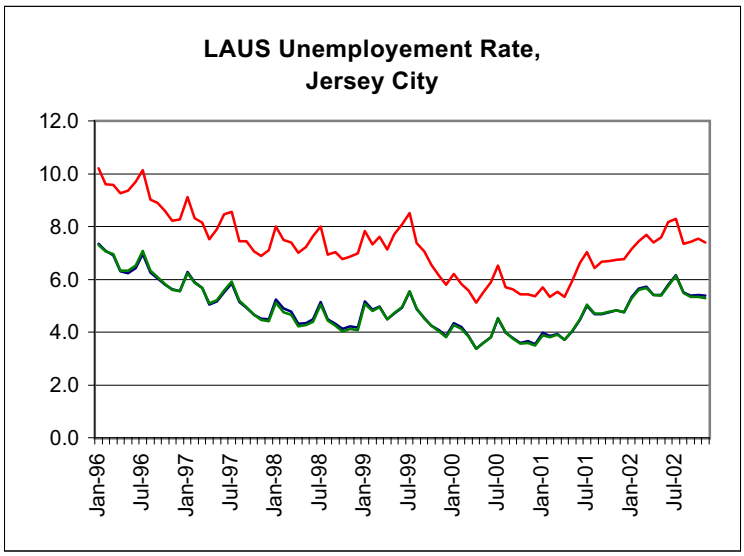
New method using population distribution

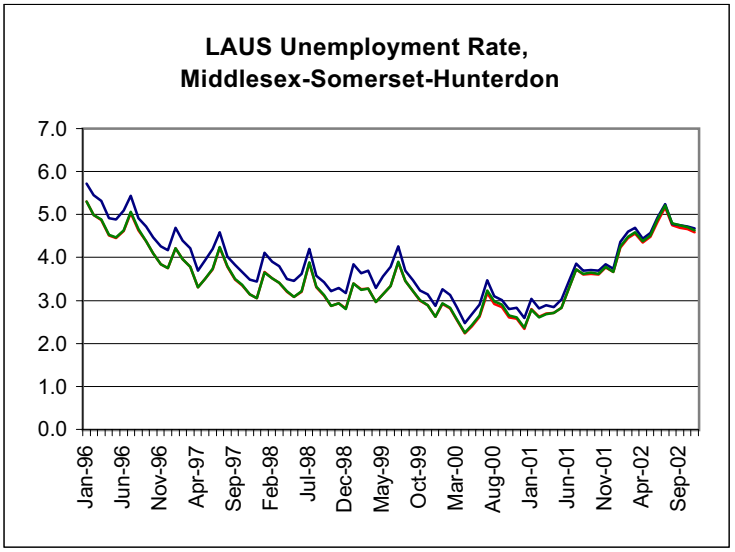
New method using experienced unemployed distribution

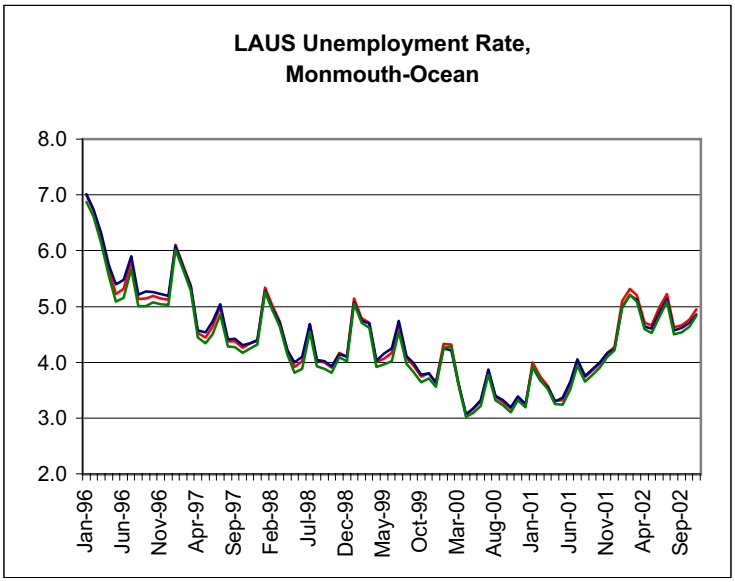
New Jersey
Unemployment Rates

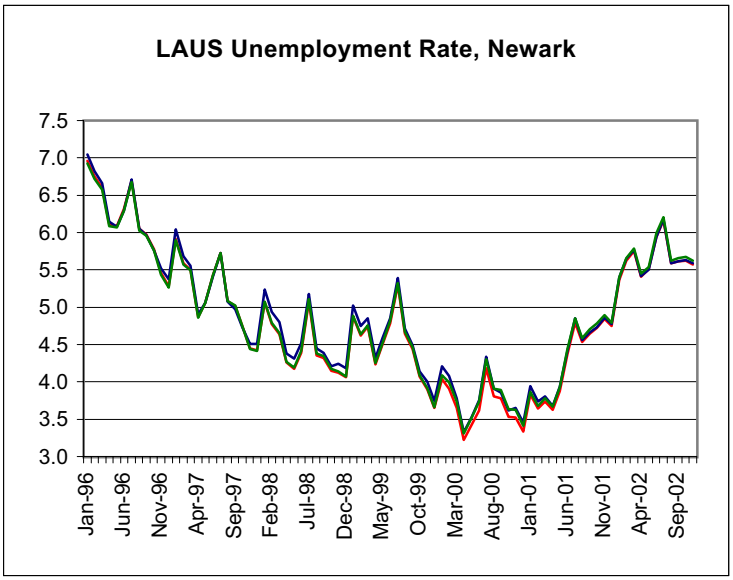












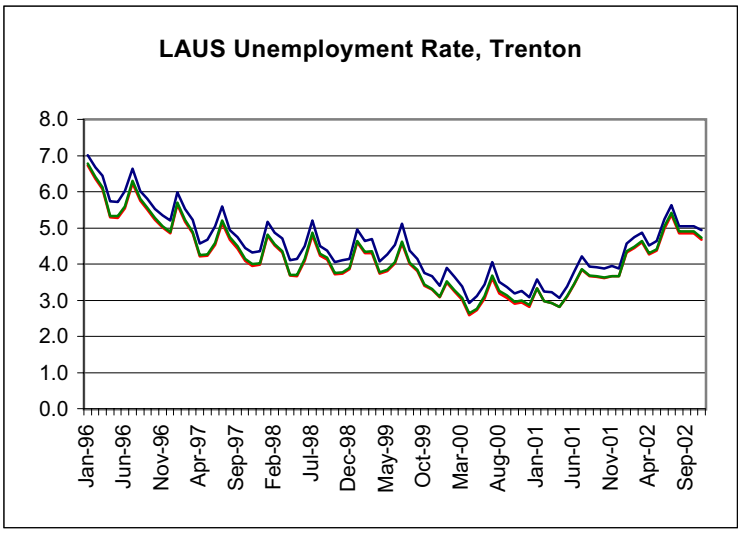
Legend:

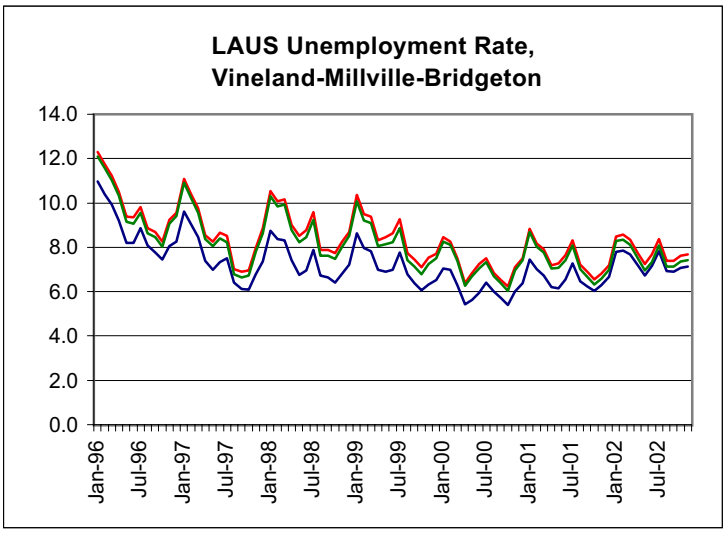
Current entrants estimation method

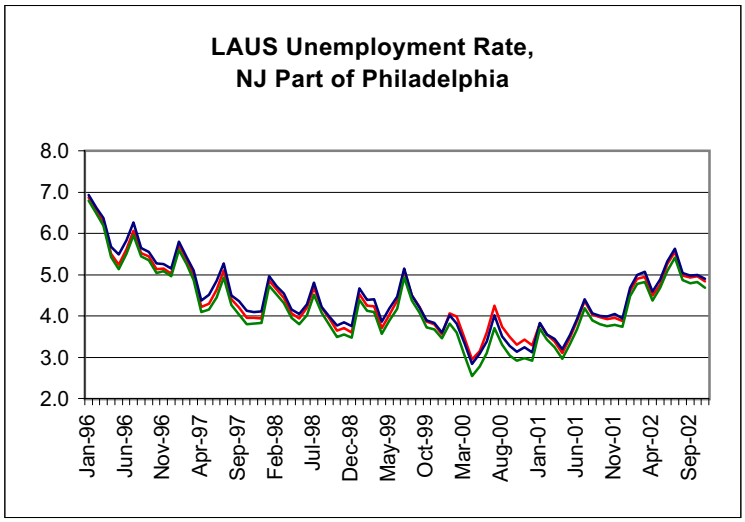
New method using population distribution

New method using experienced unemployed distribution

New Jersey
Unemployment Rates



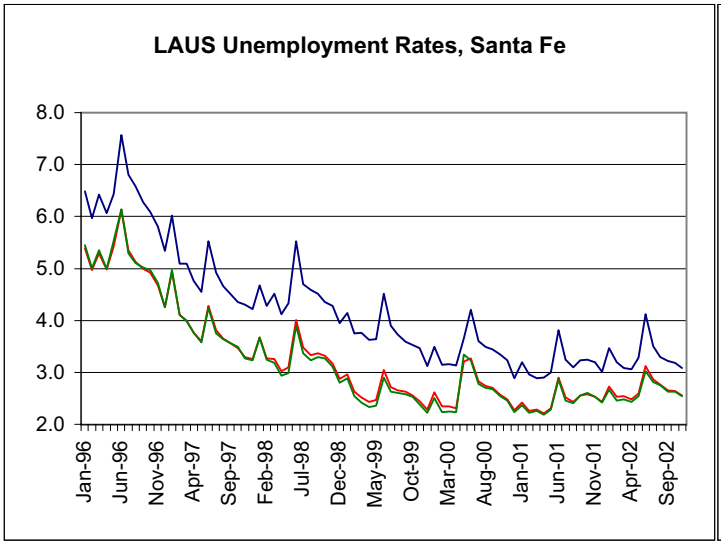


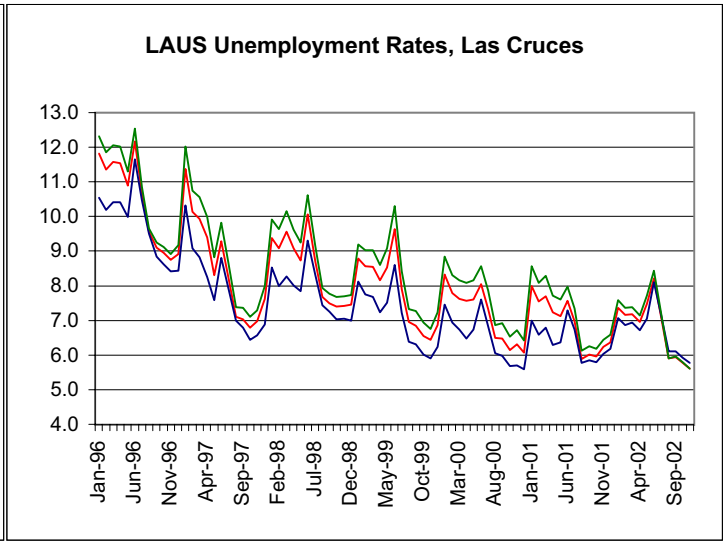


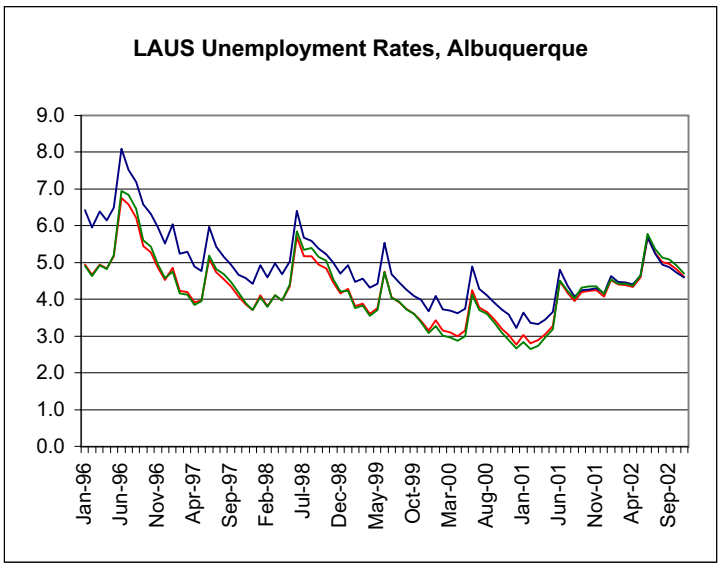
Legend:

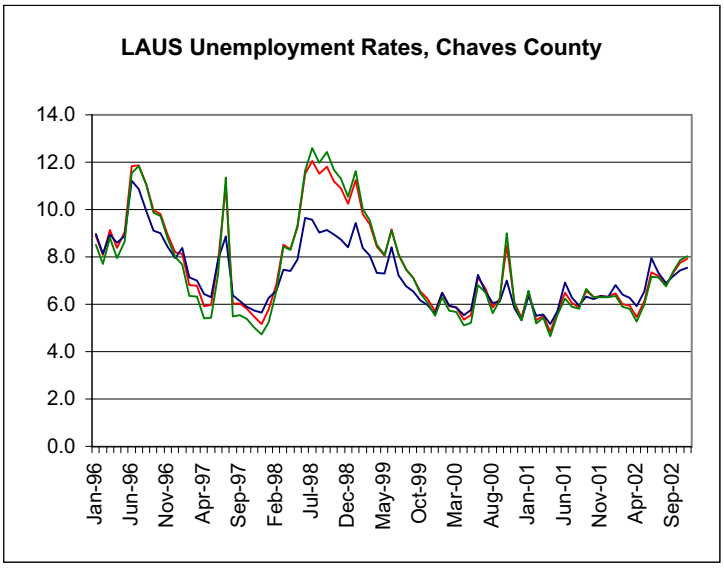
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

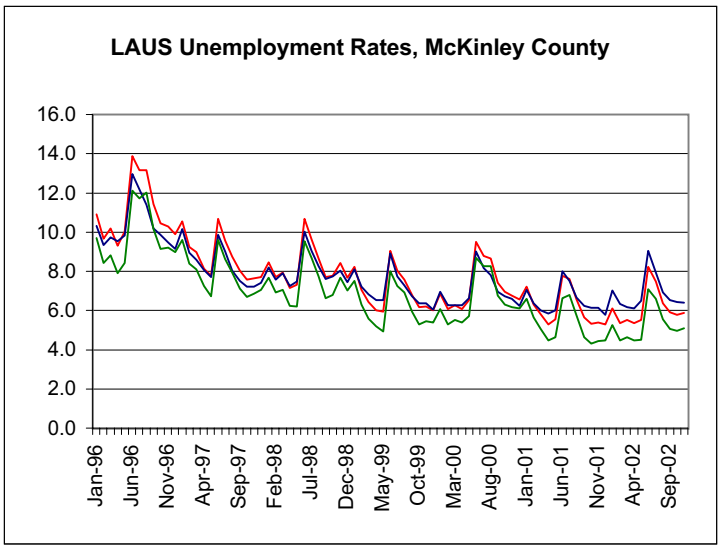
New Mexico
Unemployment Rates

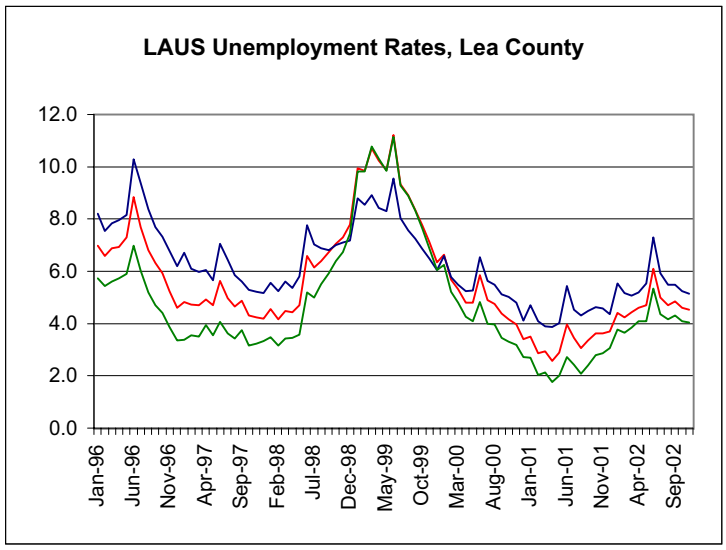








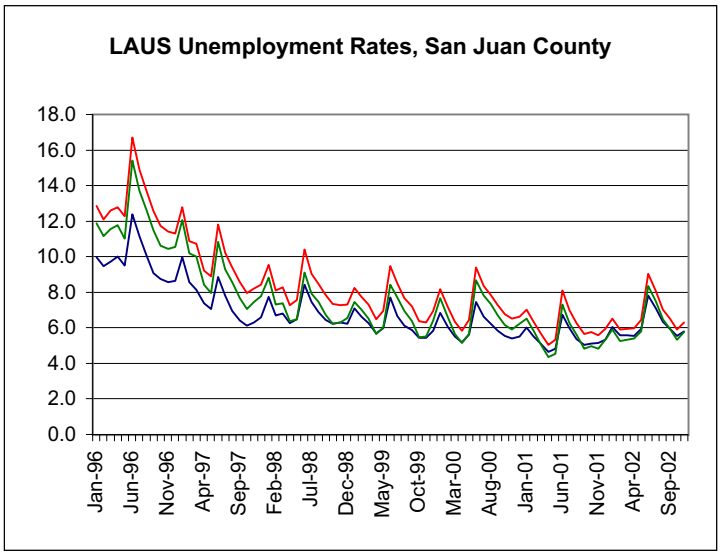


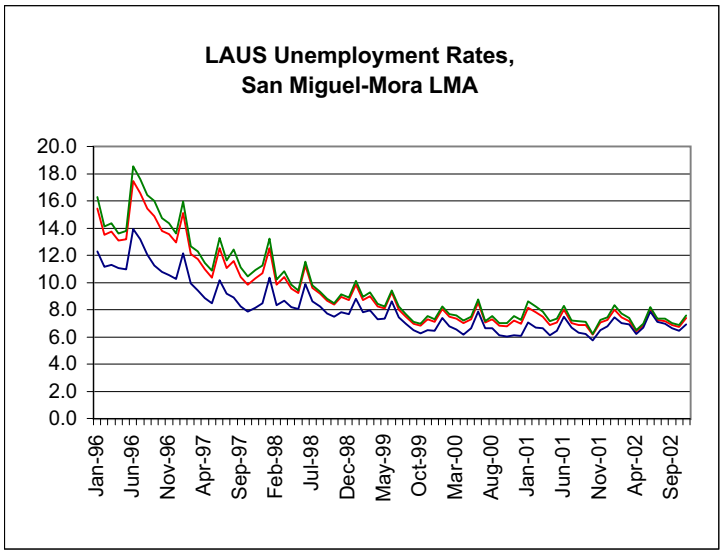


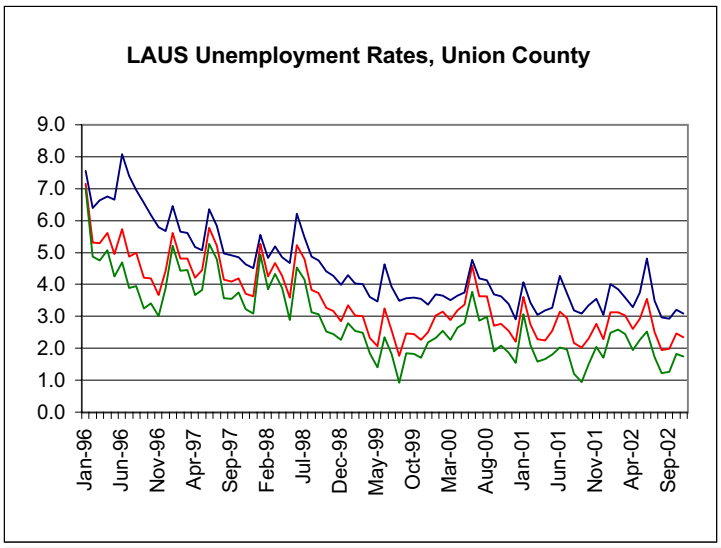
Legend:

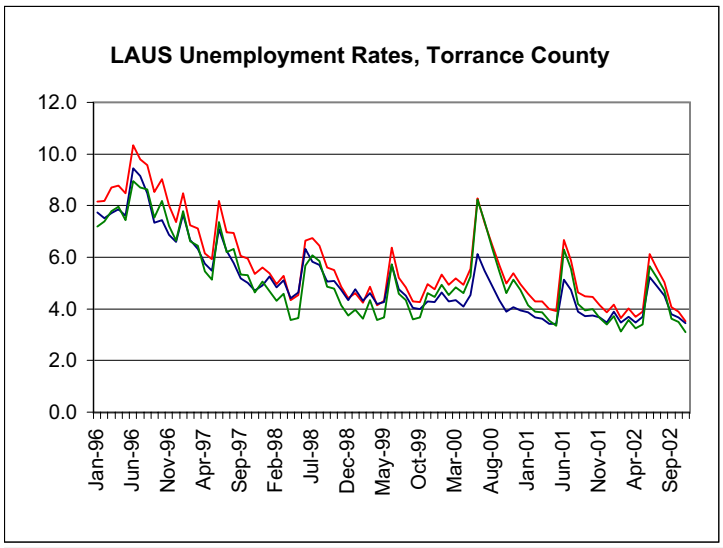
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

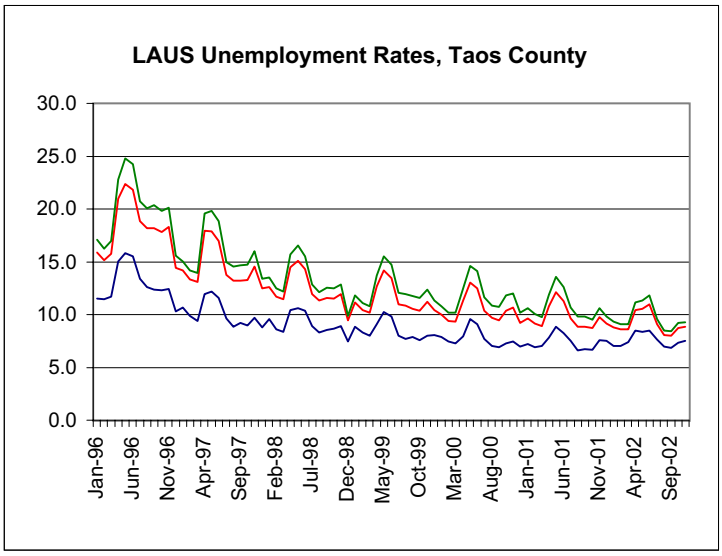
New Mexico
Unemployment Rates

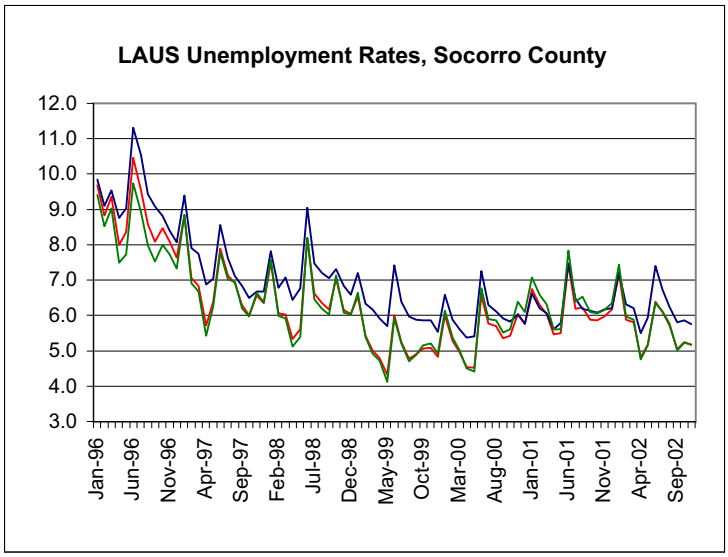








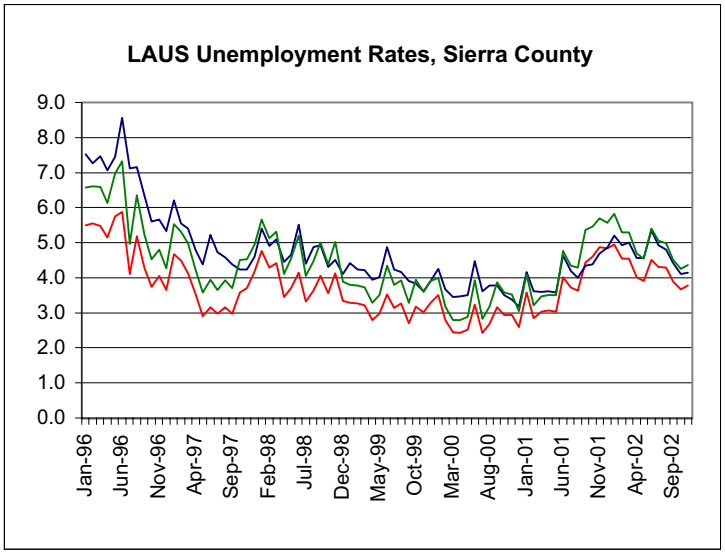


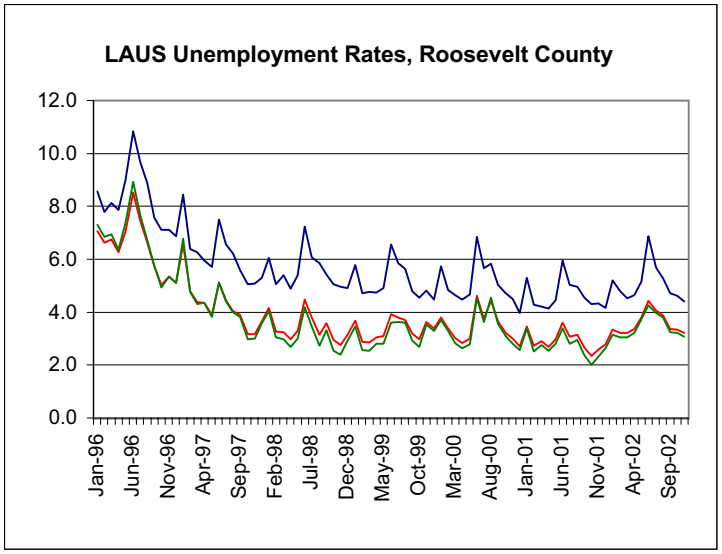


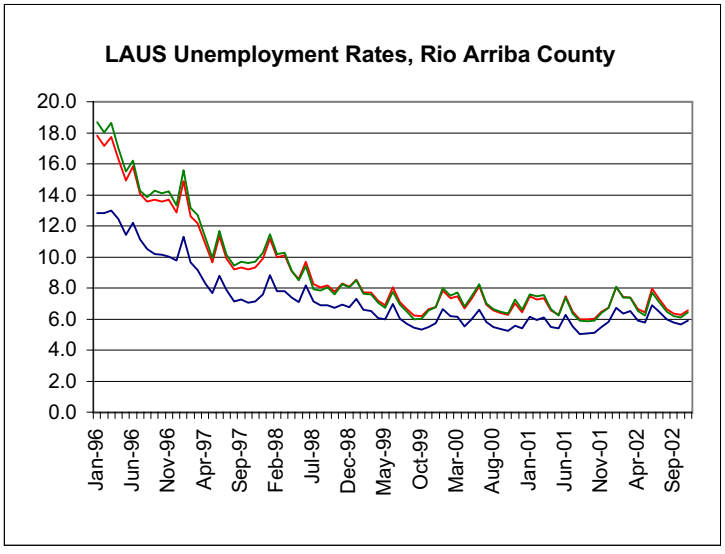
Legend:

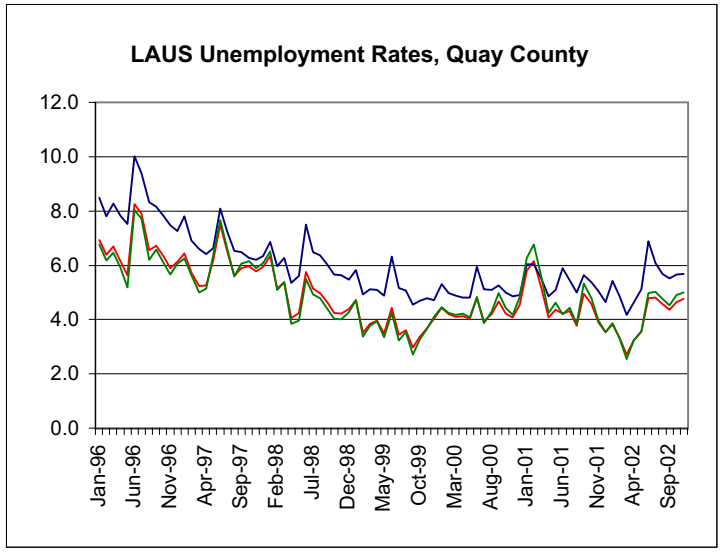
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

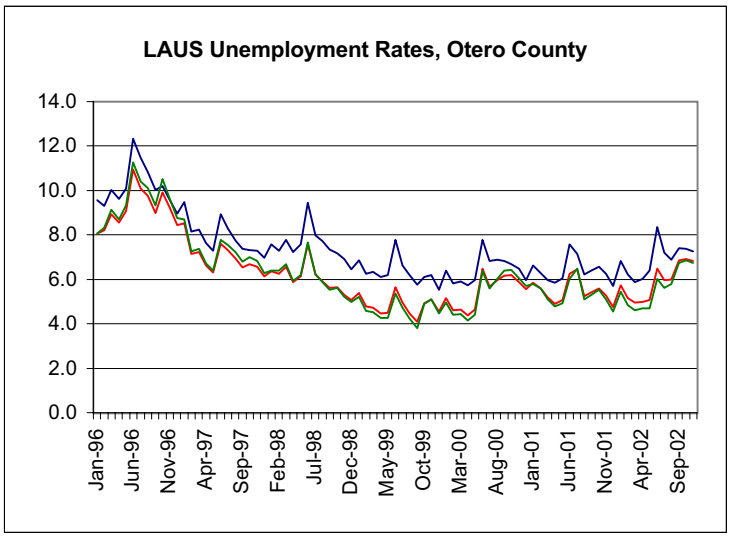
New Mexico
Unemployment Rates

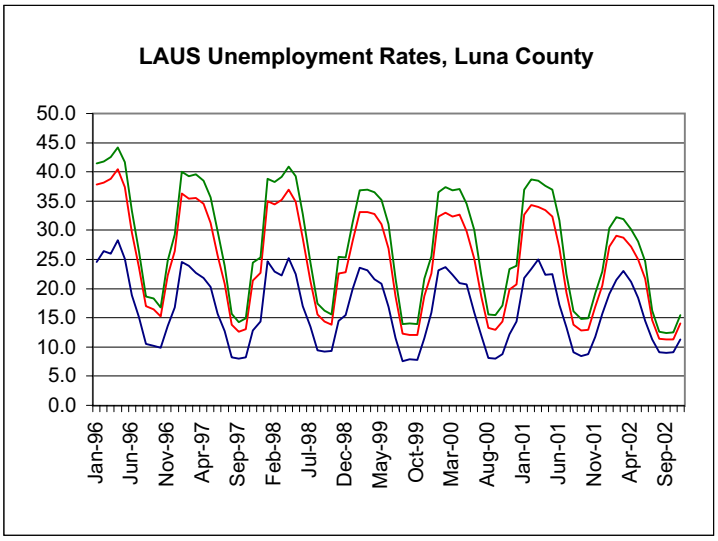








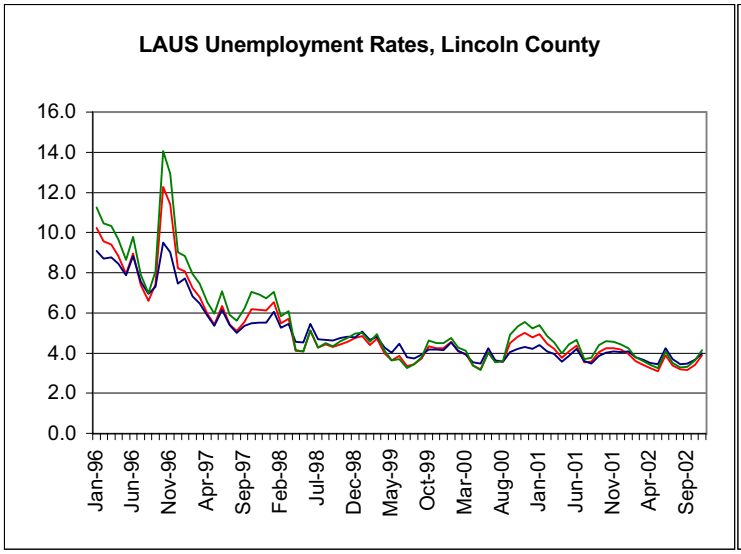


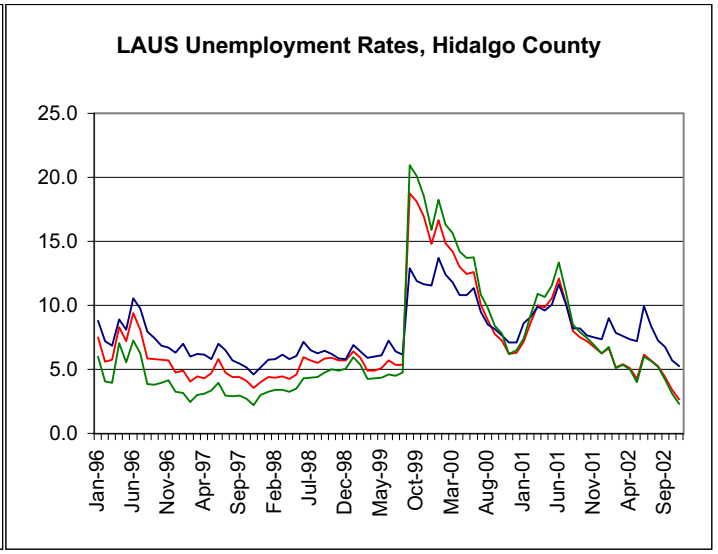


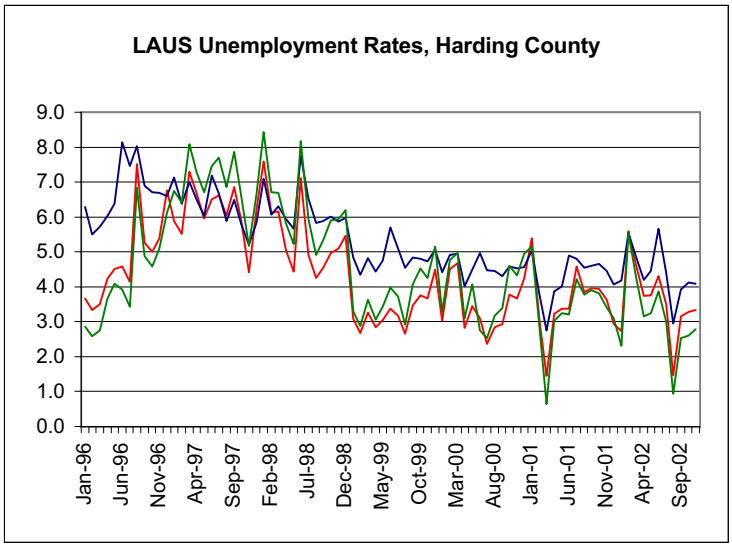
Legend:

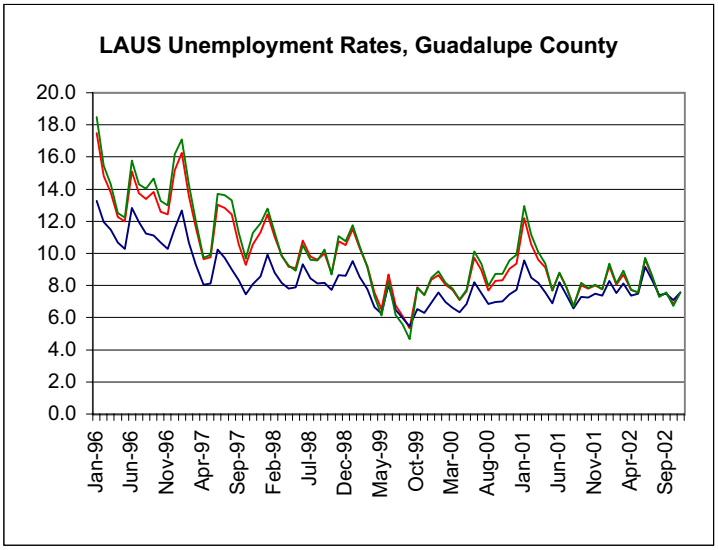
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

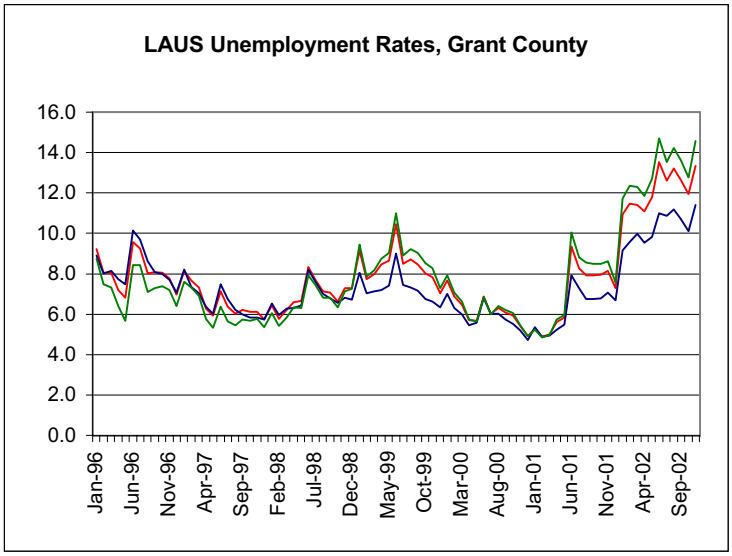
New Mexico
Unemployment Rates

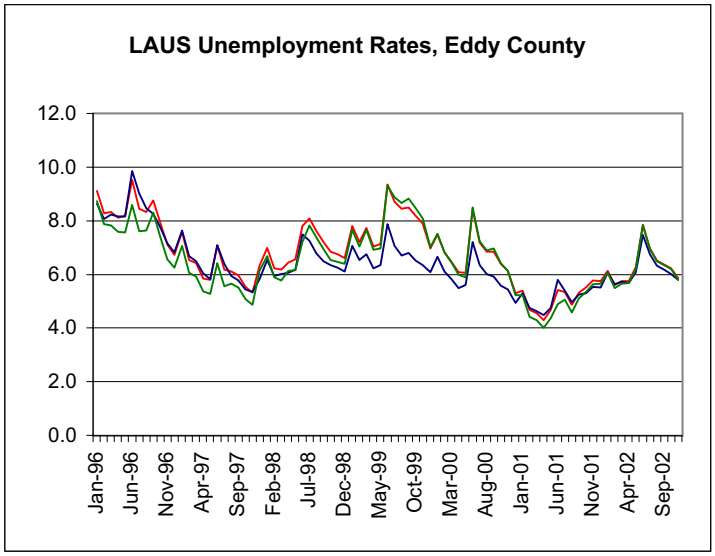








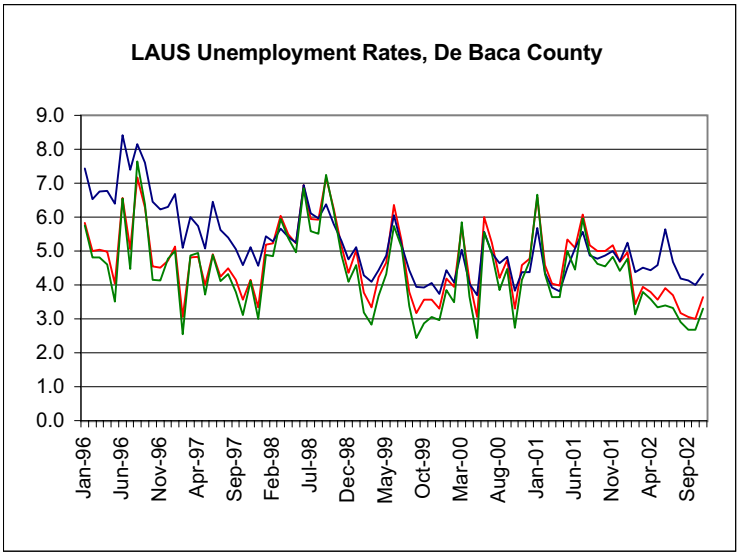


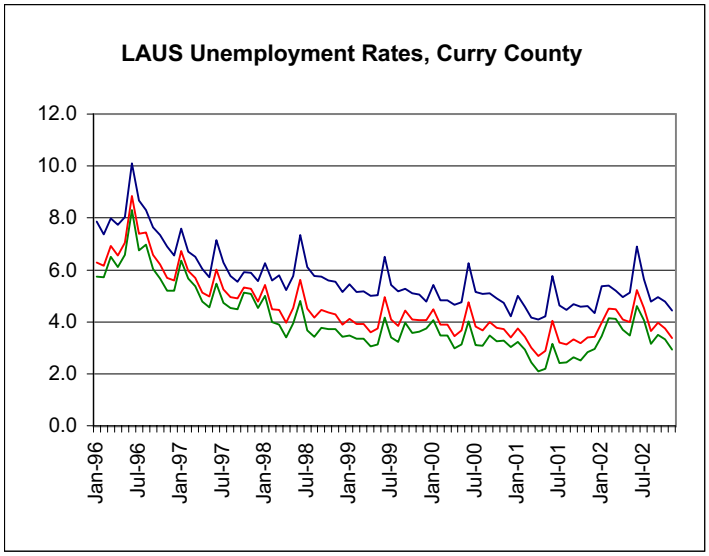


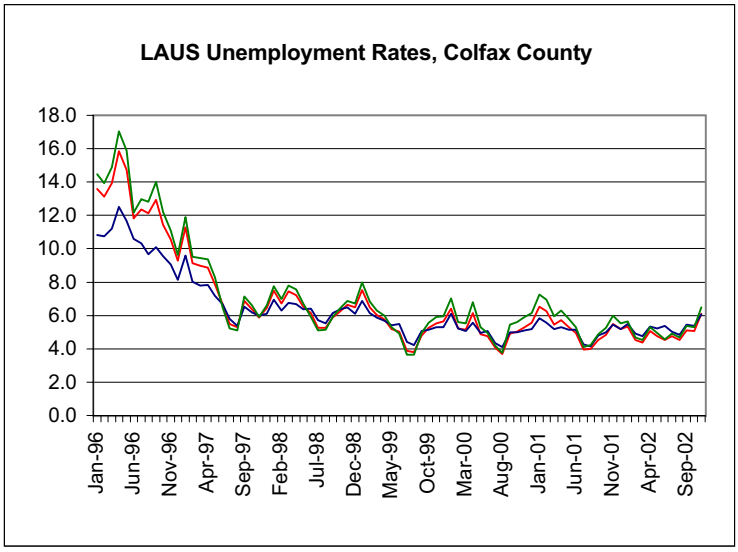
Legend:

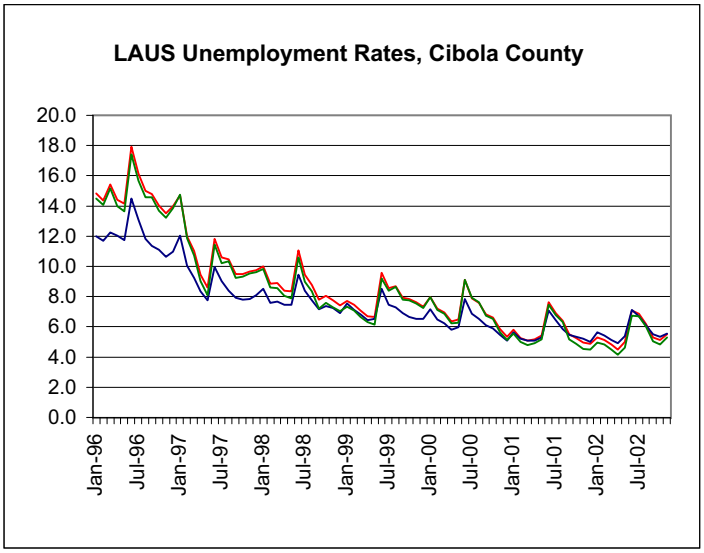
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

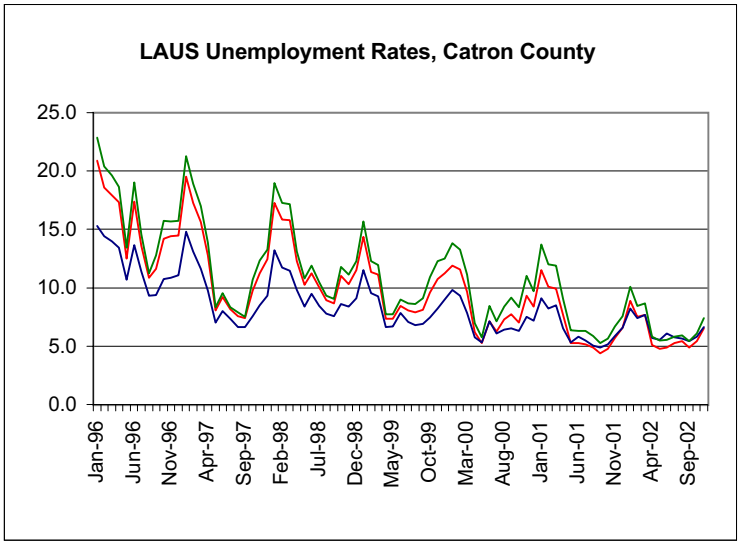
New Mexico
Unemployment Rates







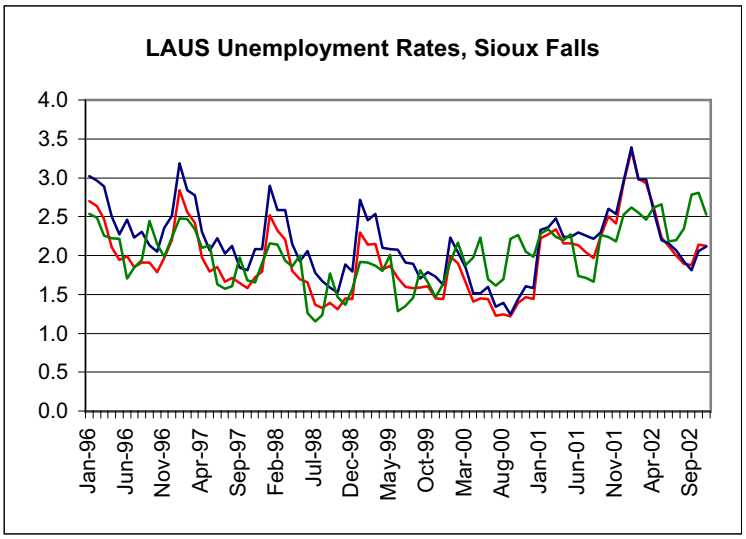


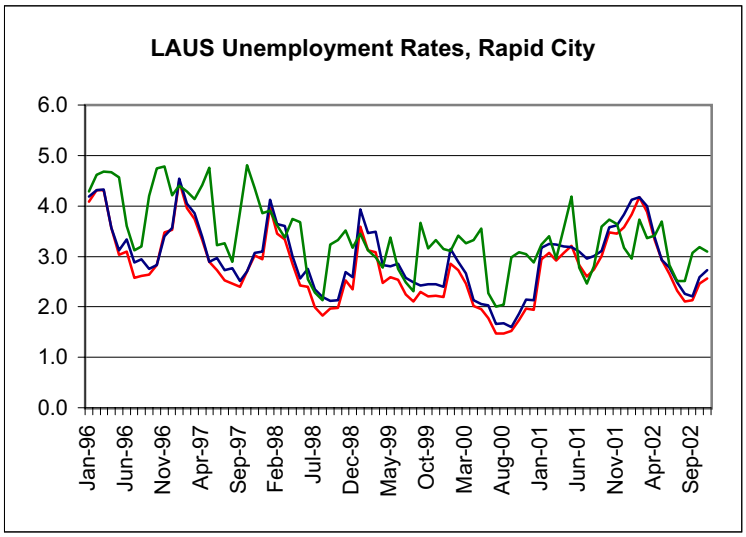


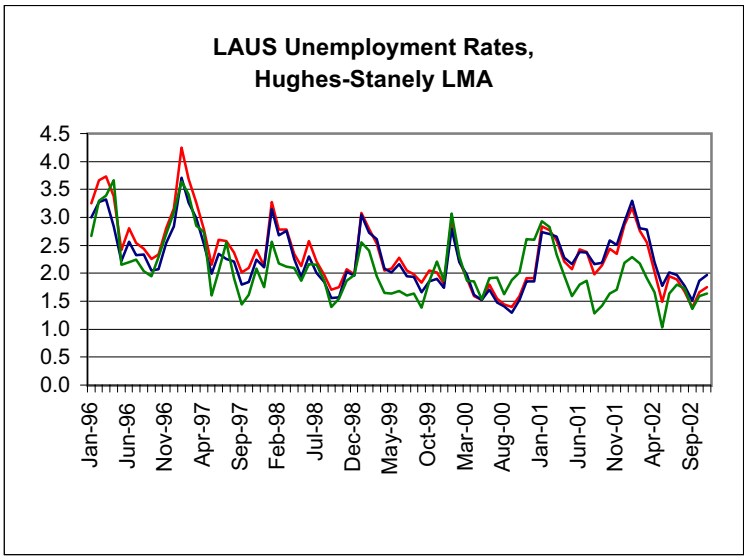
Legend:

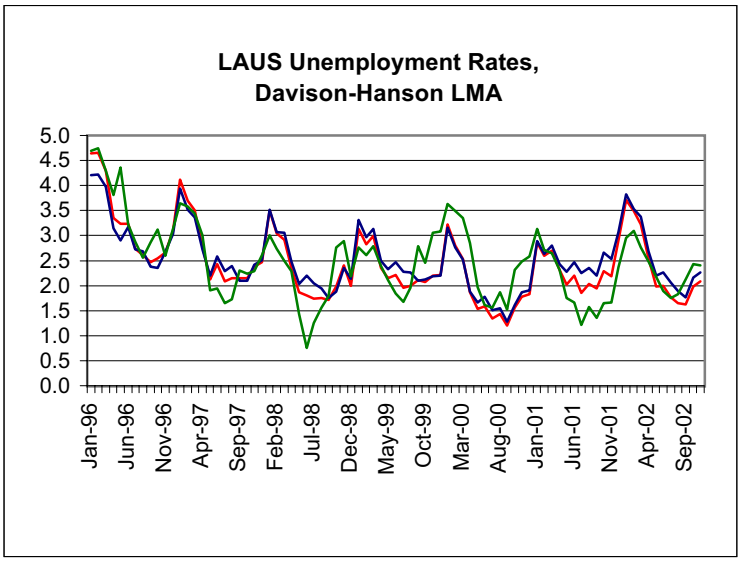
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

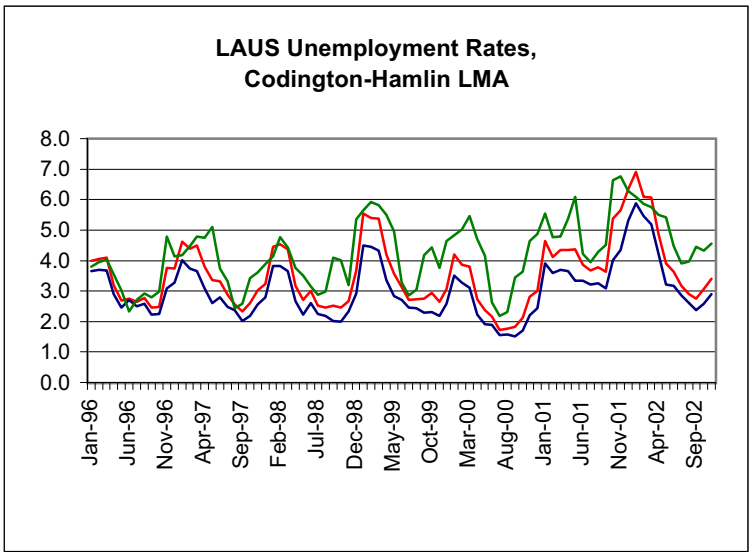
South Dakota
Unemployment Rates

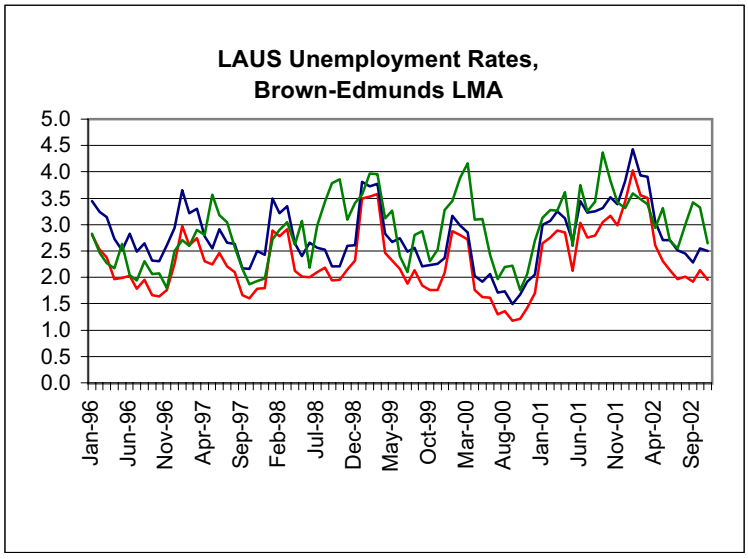








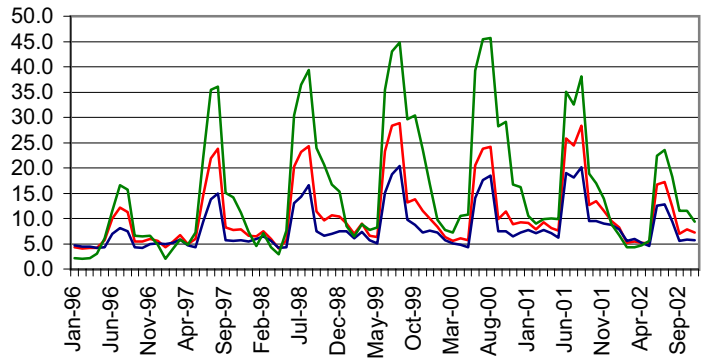




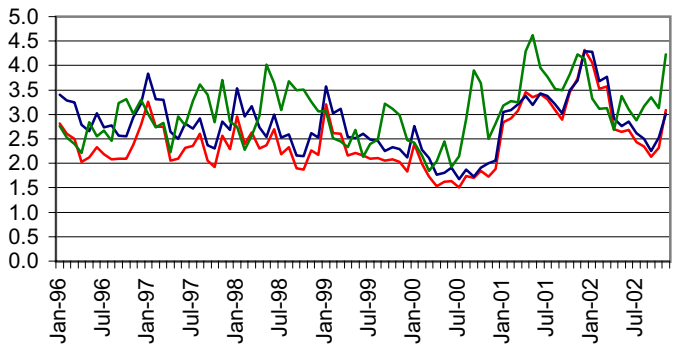
Legend:
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

South Dakota
Unemployment Rates

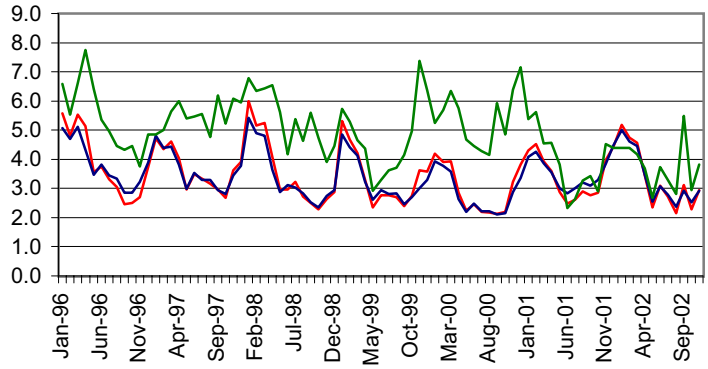
LAUS Unemployment Rates, Ziebach County



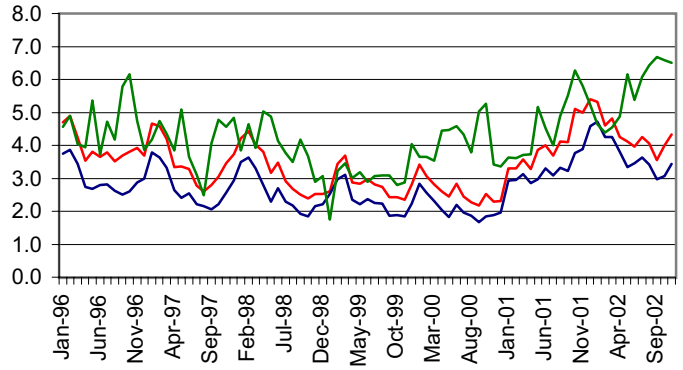
LAUS Unemployment Rates, Yankton County



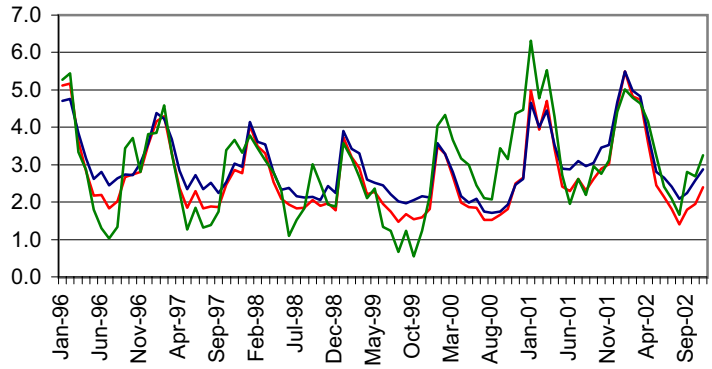
LAUS Unemployment Rates, Walworth County



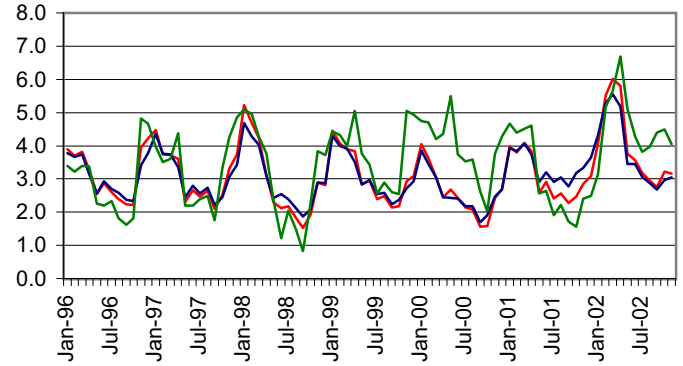
LAUS Unemployment Rates, Union County



LAUS Unemployment Rates, Turner County



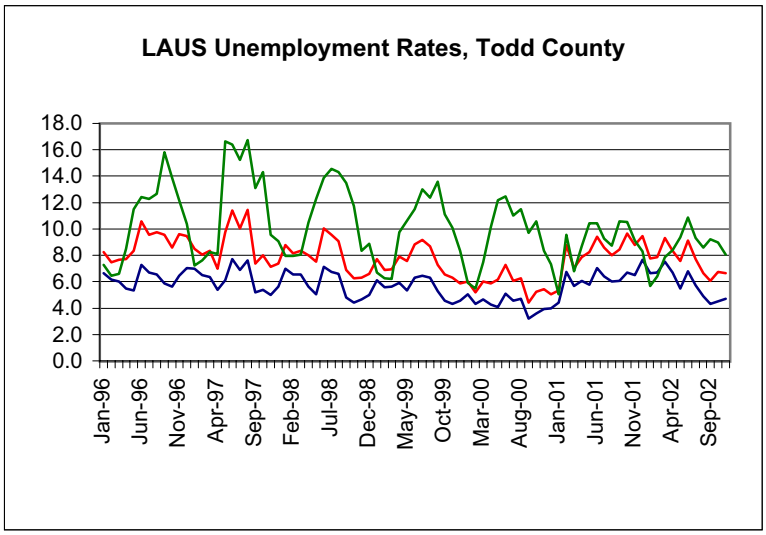
LAUS Unemployment Rates, Tripp County

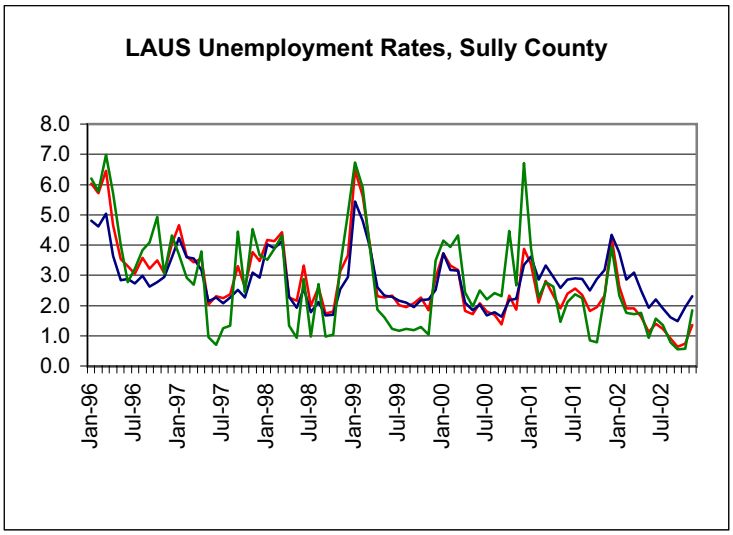


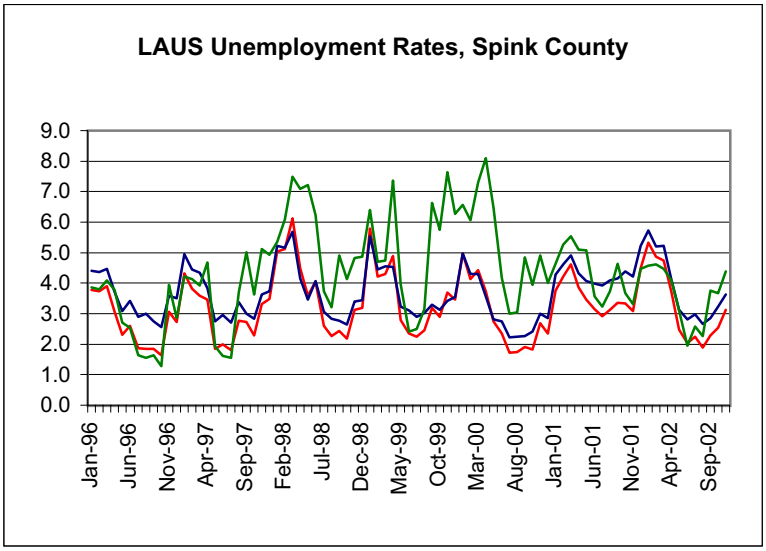
Legend:

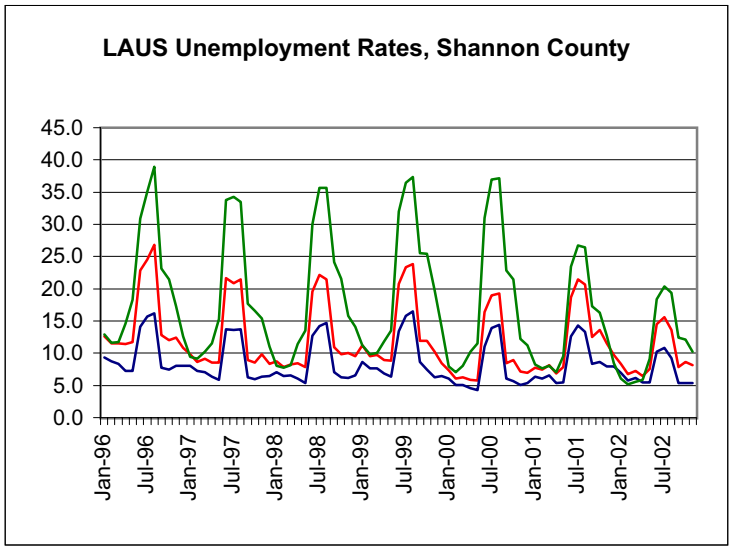
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

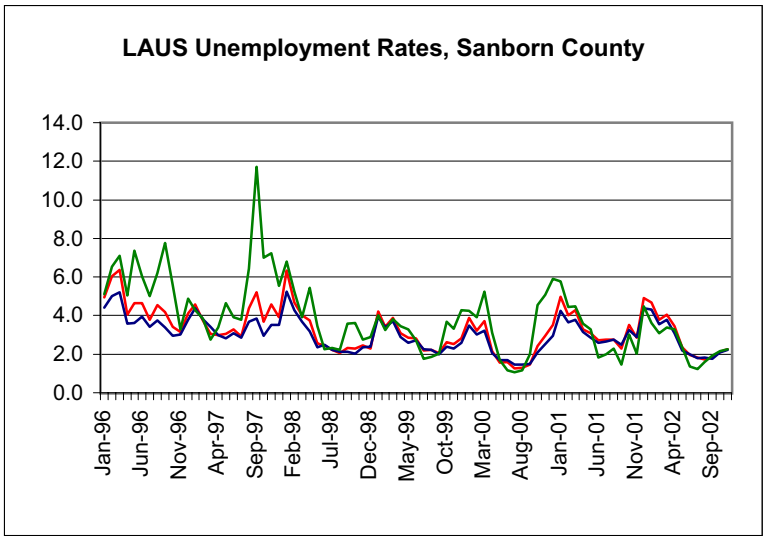
South Dakota
Unemployment Rates

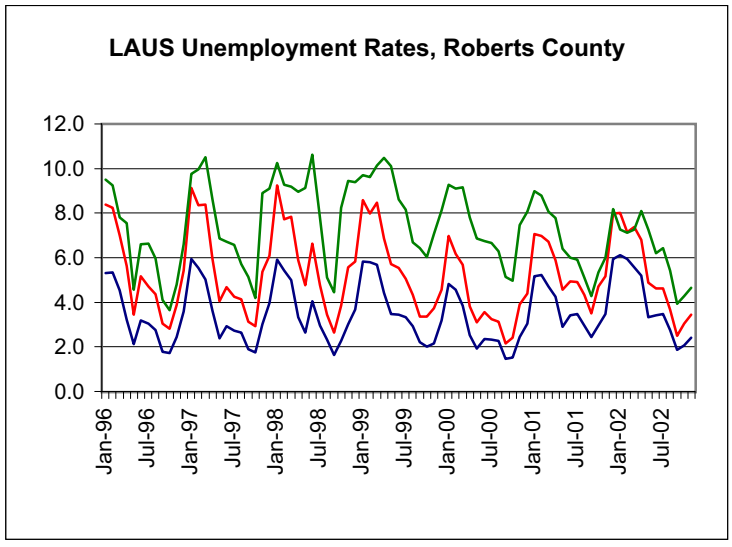






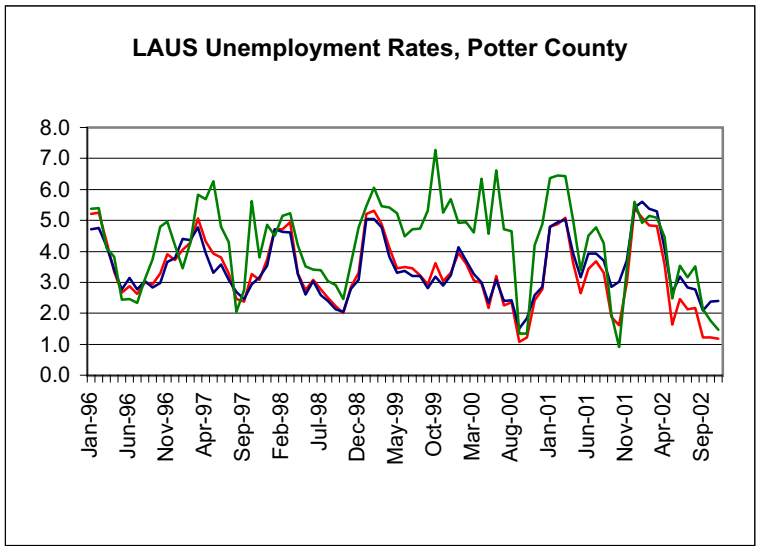


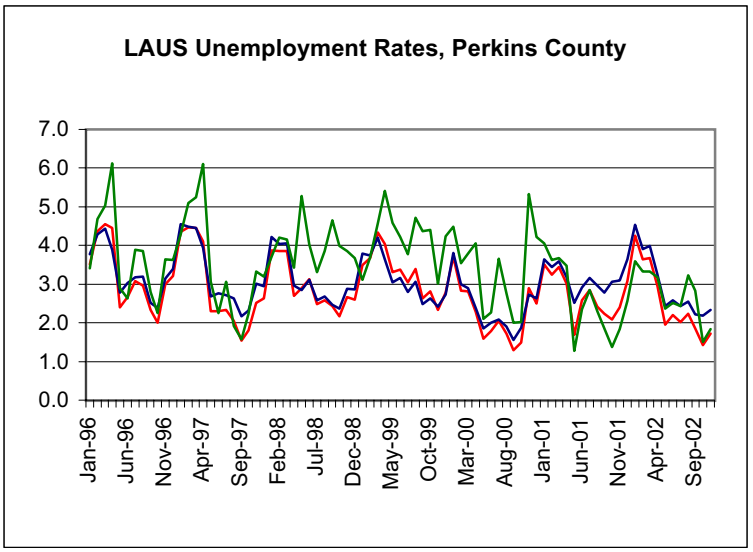


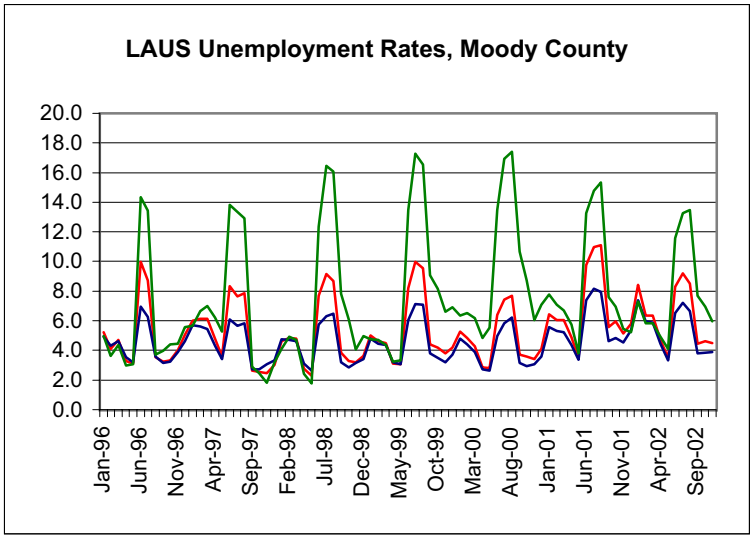


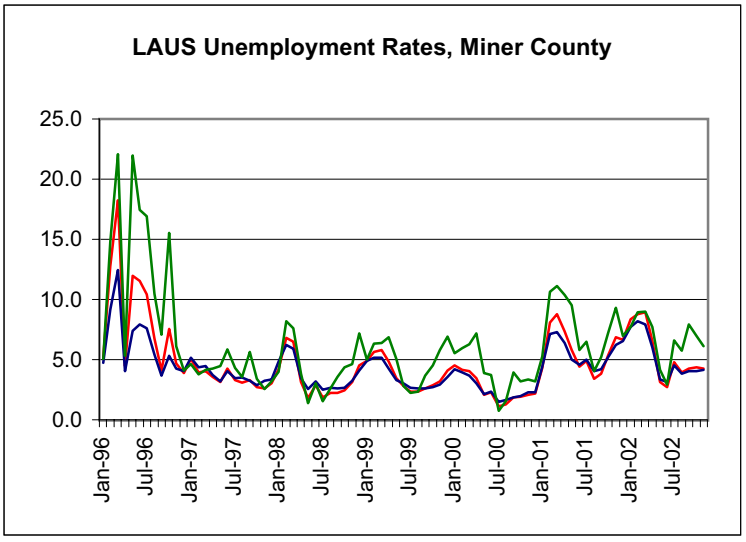
Legend:
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

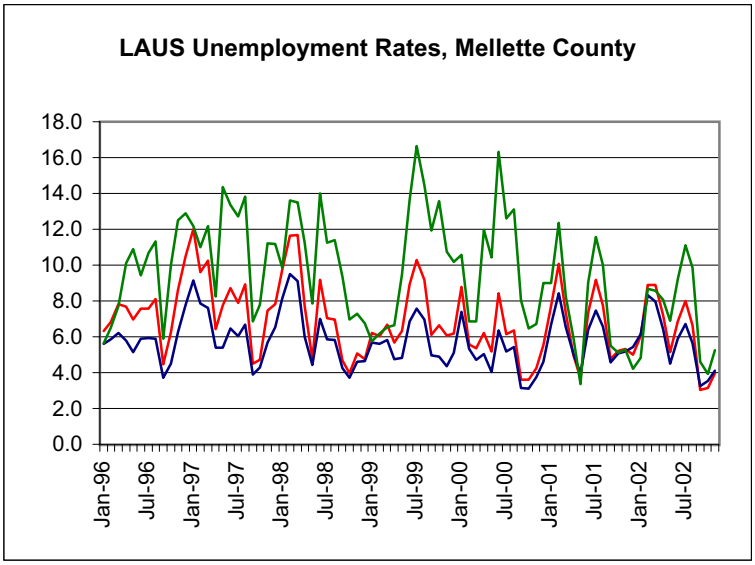
South Dakota
Unemployment Rates

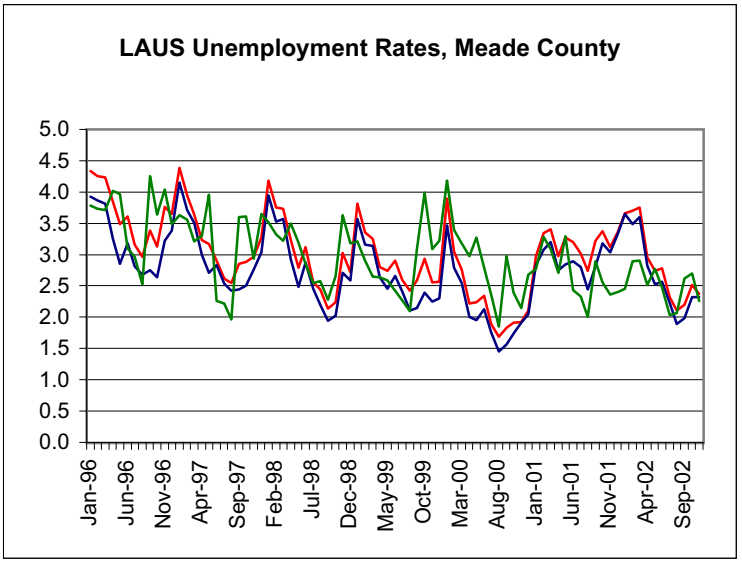






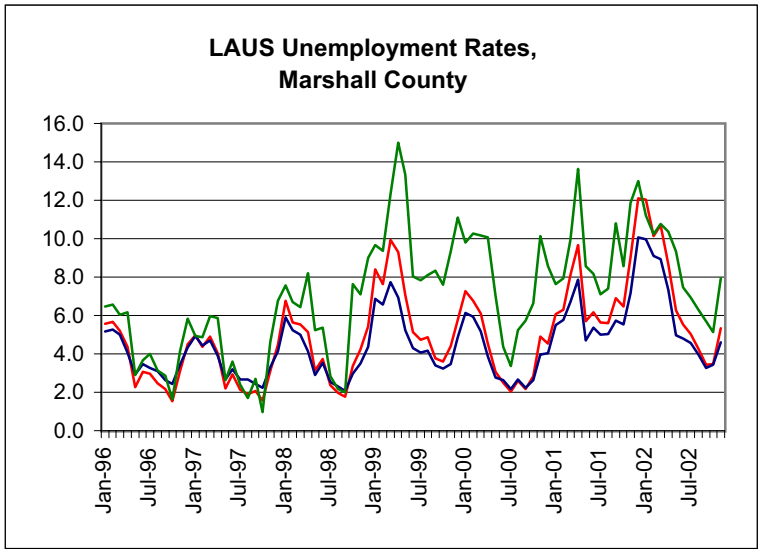


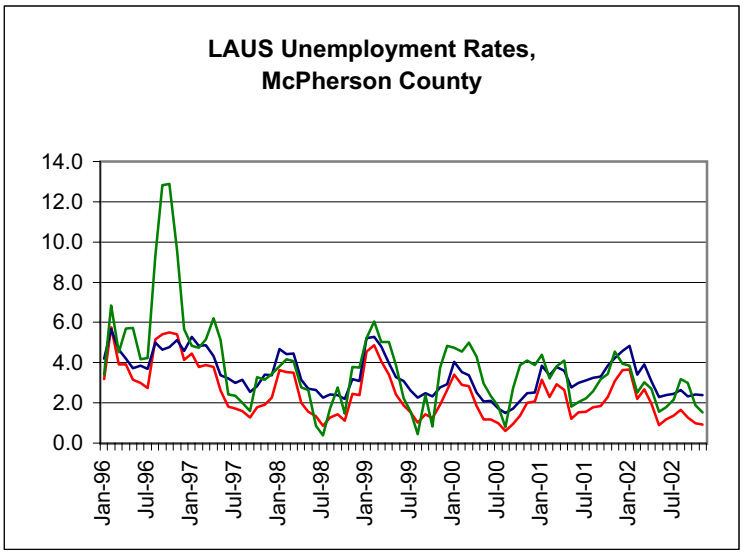


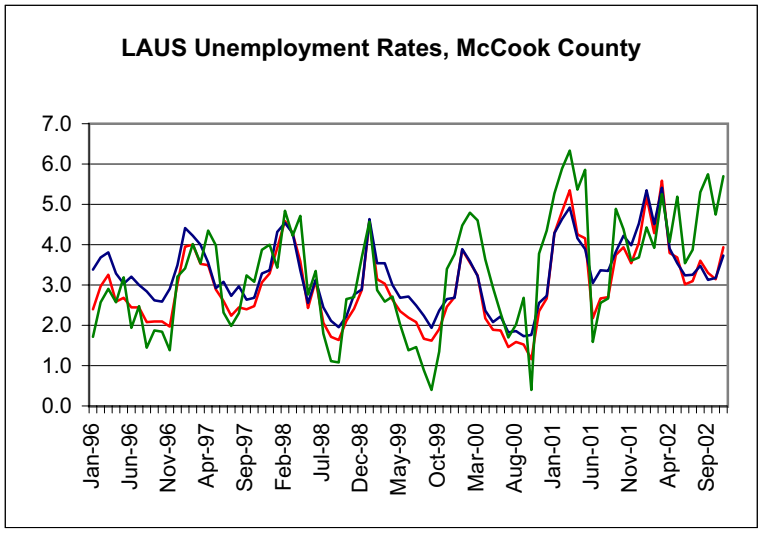


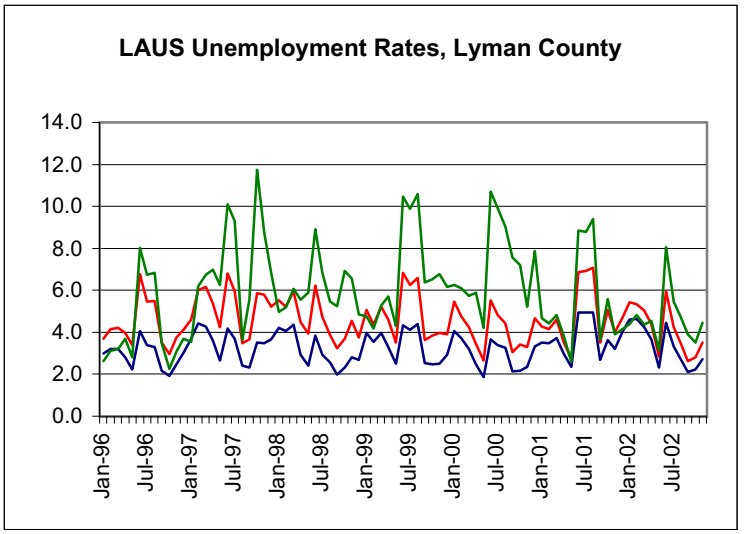
Legend:
Current entrants estimation method
New method using population distribution
New method using experienced unemployed distribution

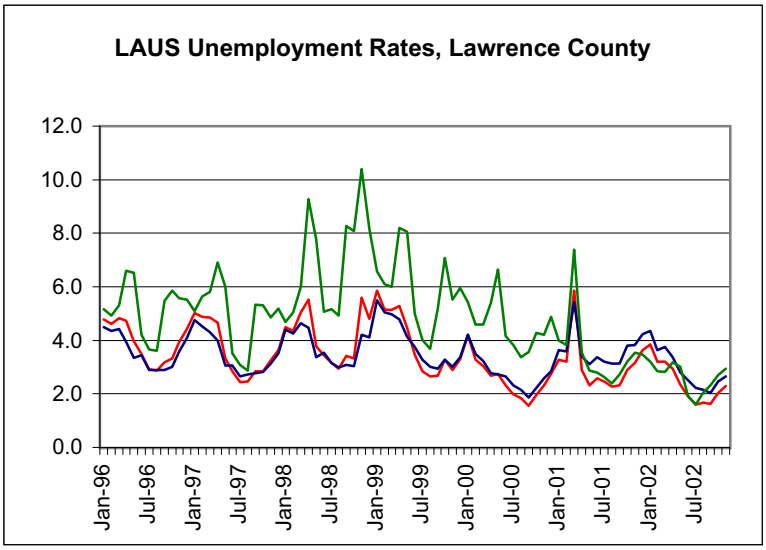
South Dakota
Unemployment Rates

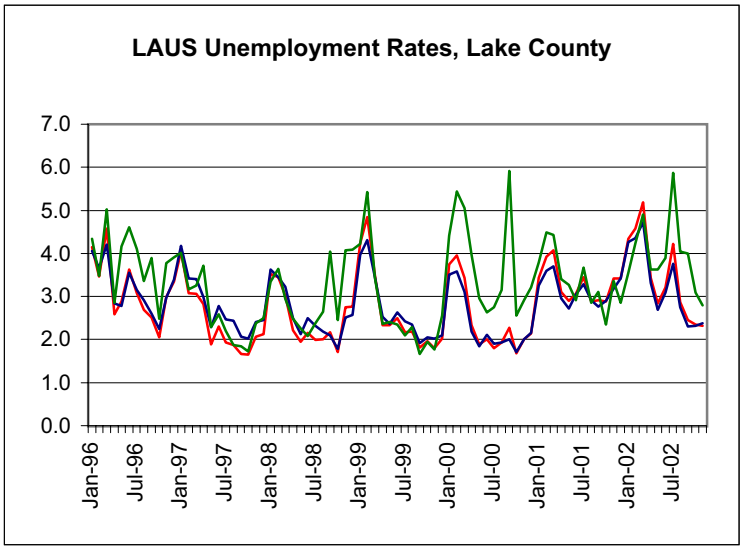








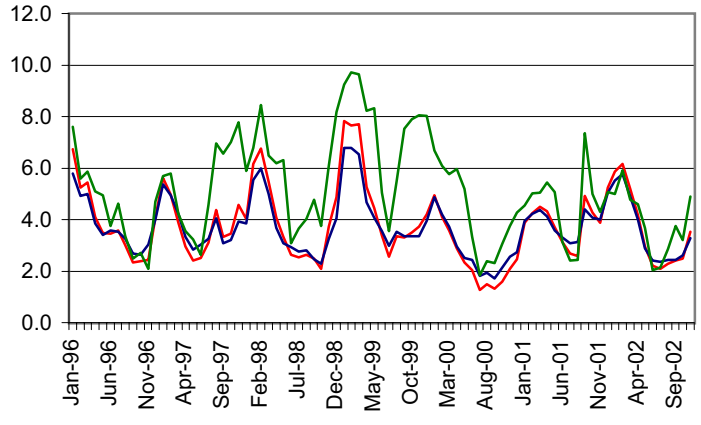




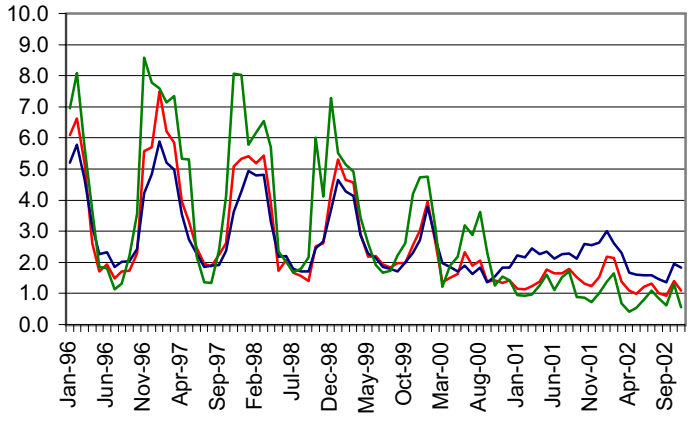
Legend:
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

South Dakota
Unemployment Rates

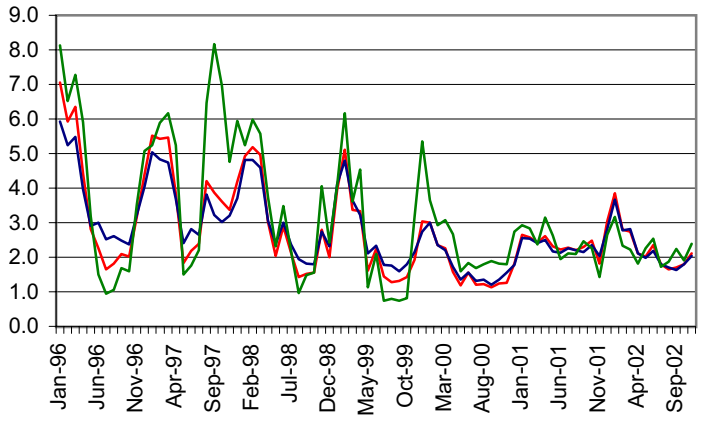
LAUS Unemployment Rates, Kingsbury County



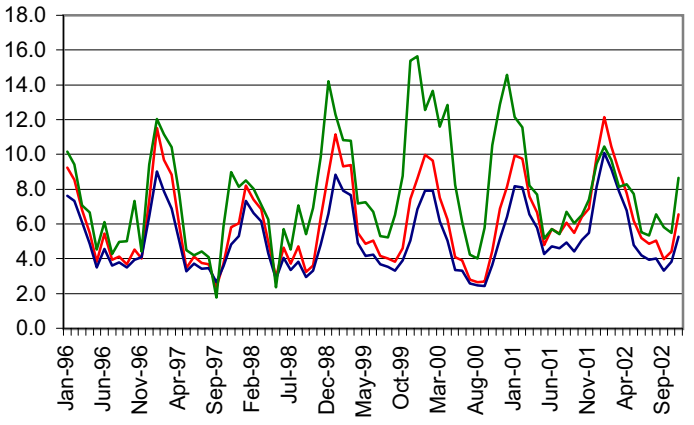
LAUS Unemployment Rates, Jones County



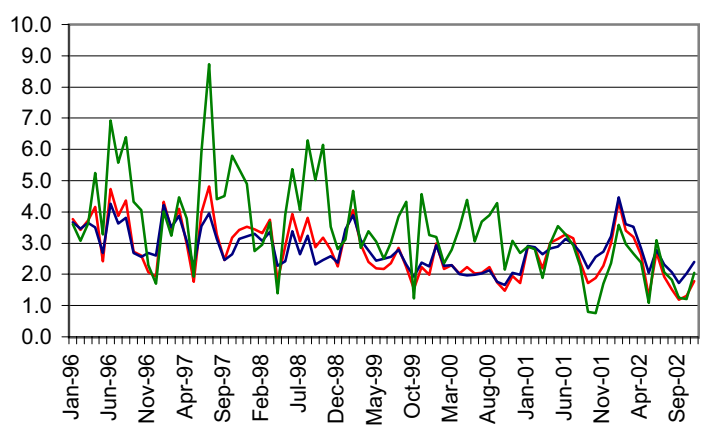
LAUS Unemployment Rates, Jerauld County



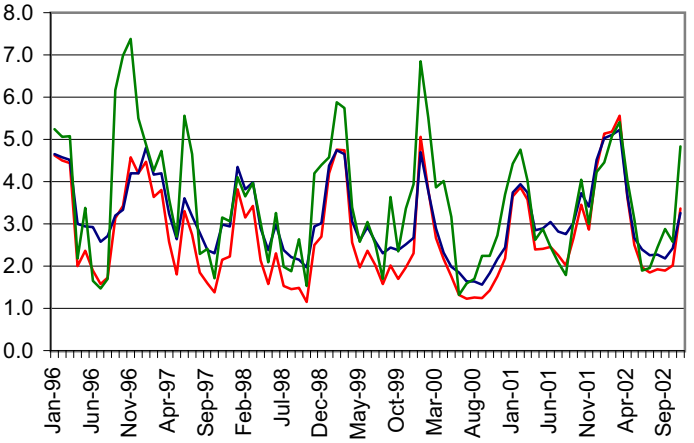
LAUS Unemployment Rates, Jackson County



LAUS Unemployment Rates, Hyde County



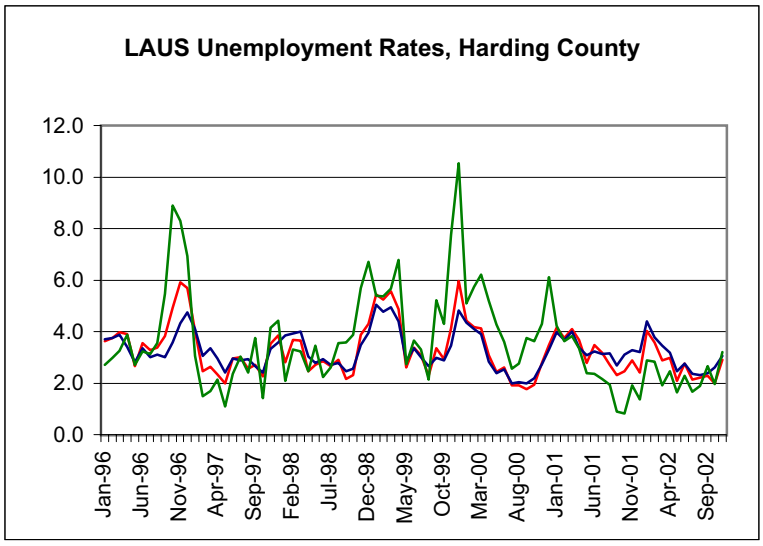
LAUS Unemployment Rates, Hutchinson County

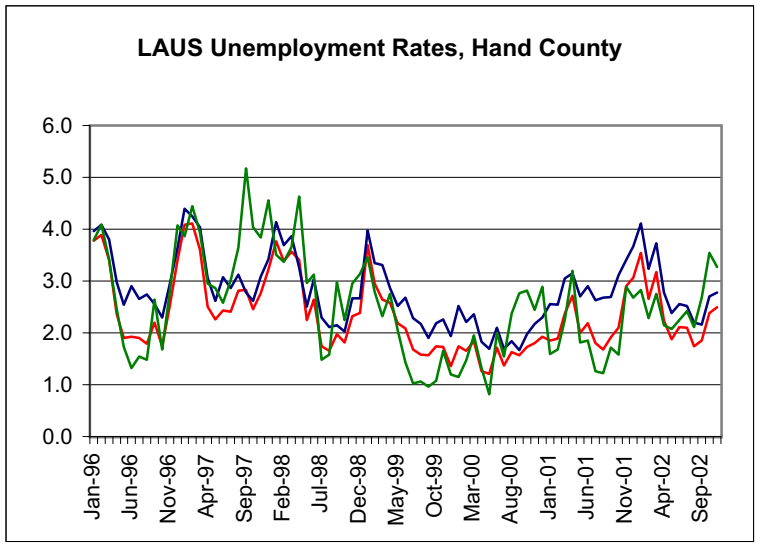


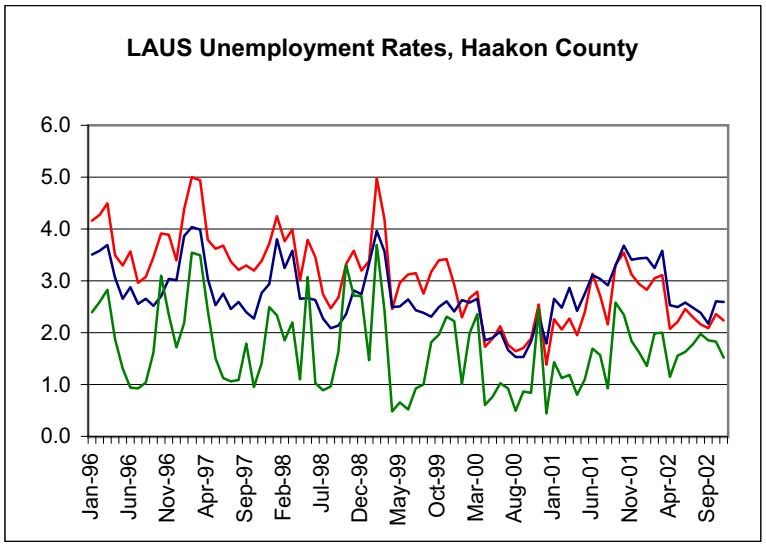
Legend:

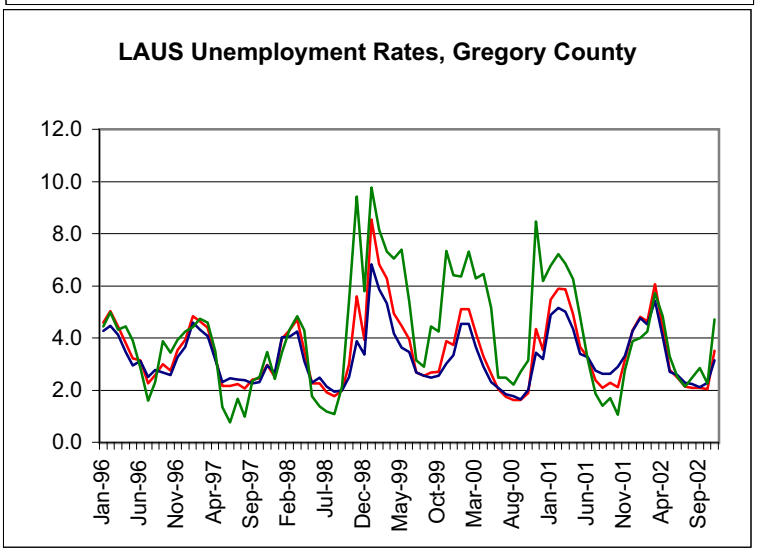
- Current entrants estimation method
- New method using population distribution
- New method using experienced unemployed distribution

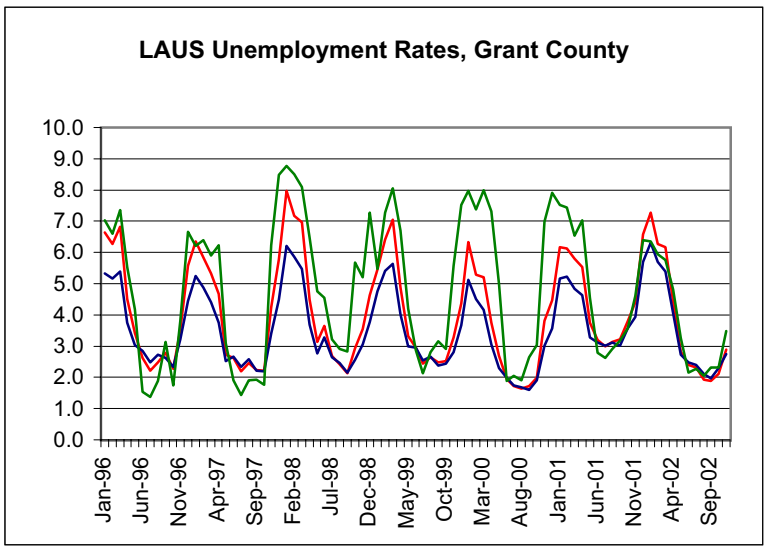
South Dakota
Unemployment Rates

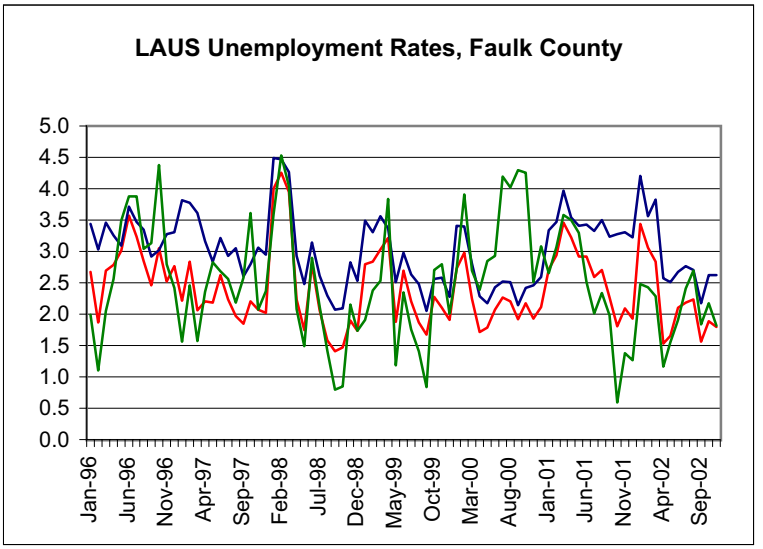












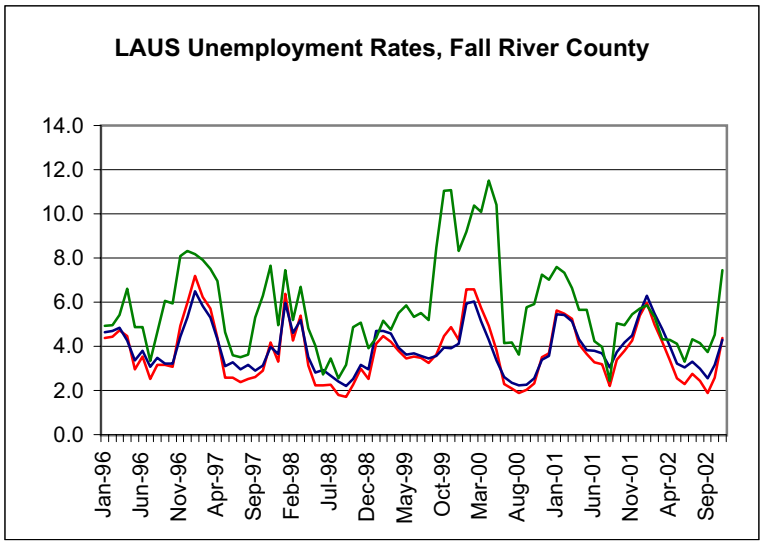
Legend:

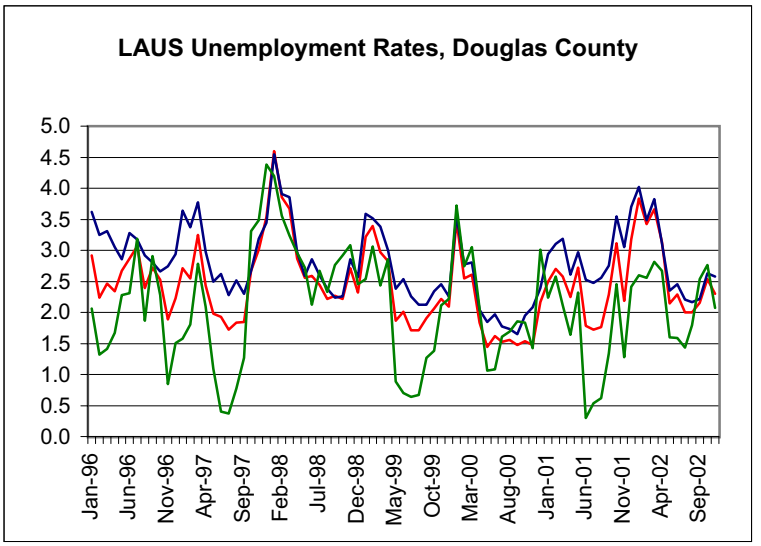
Current entrants estimation method

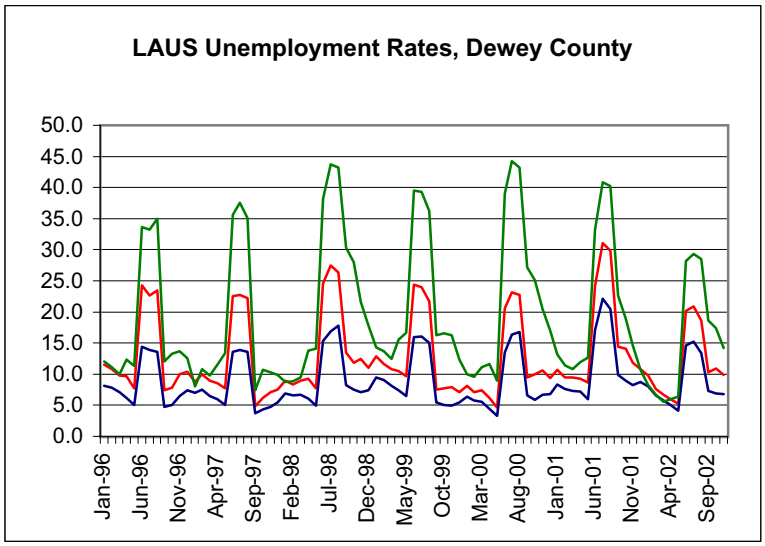
New method using population distribution

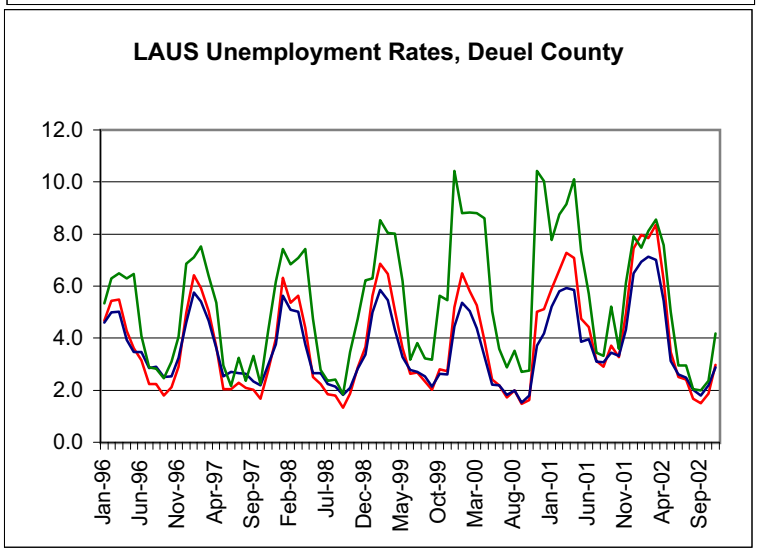
New method using experienced unemployed distribution

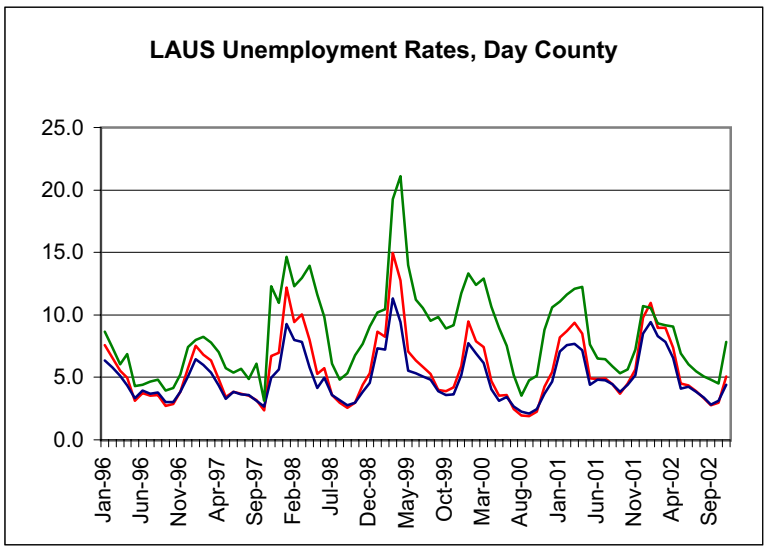
South Dakota
Unemployment Rates

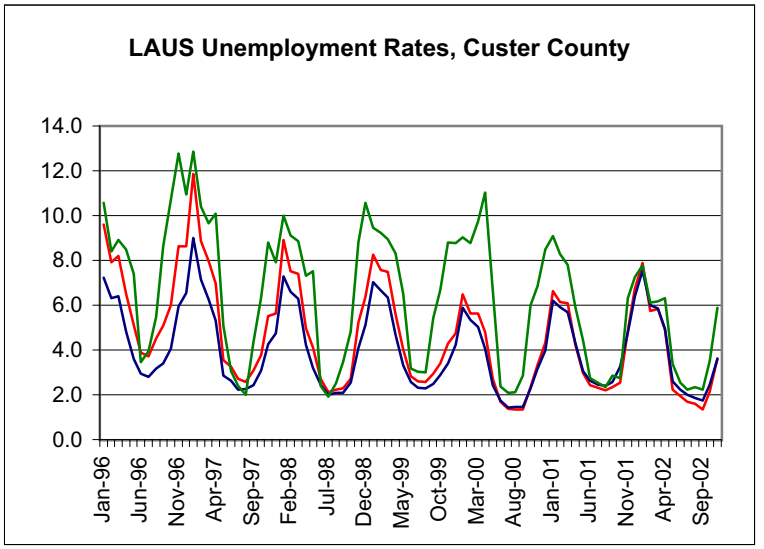












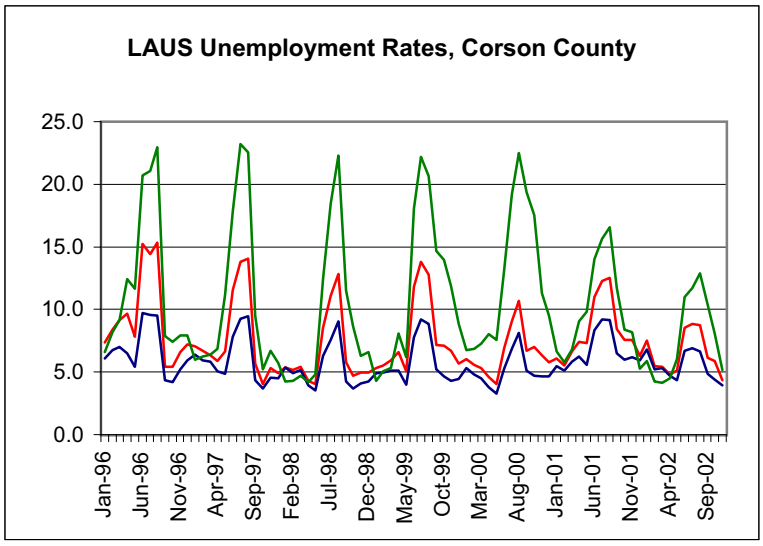
Legend:

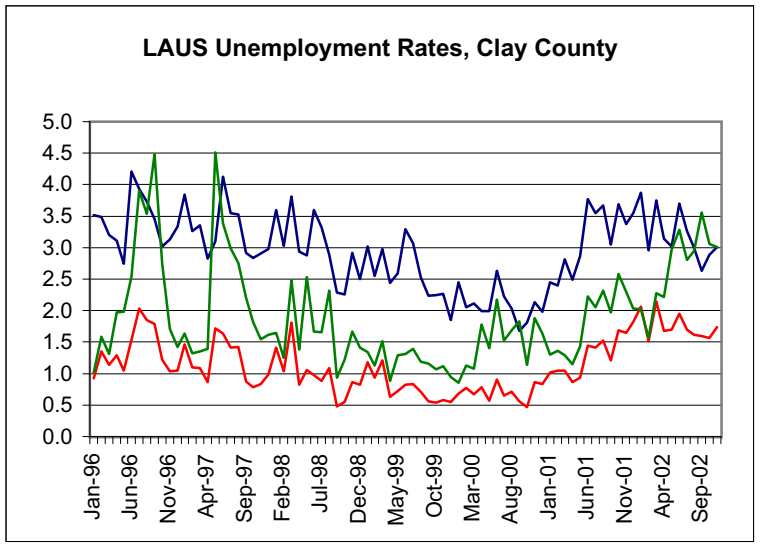
Current entrants estimation method

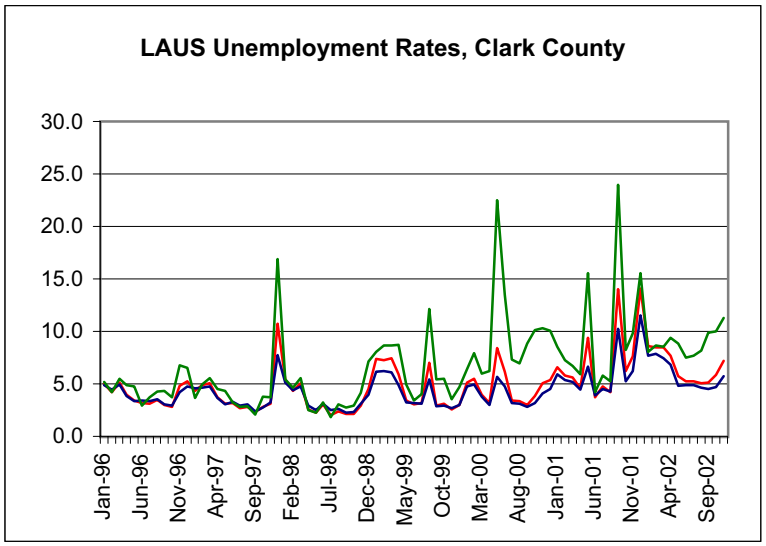
New method using population distribution

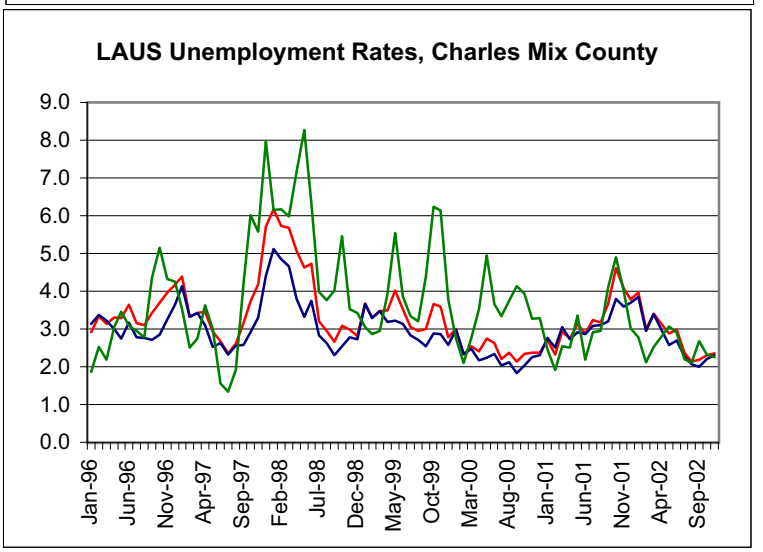
New method using experienced unemployed distribution

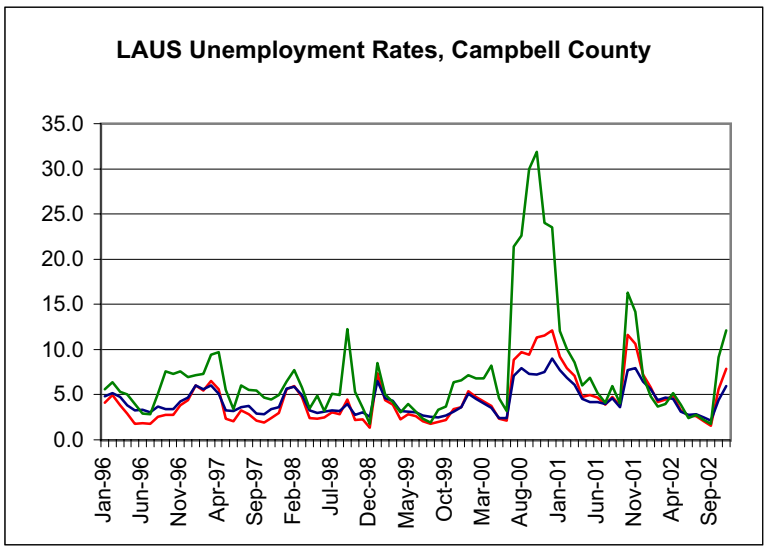
South Dakota
Unemployment Rates

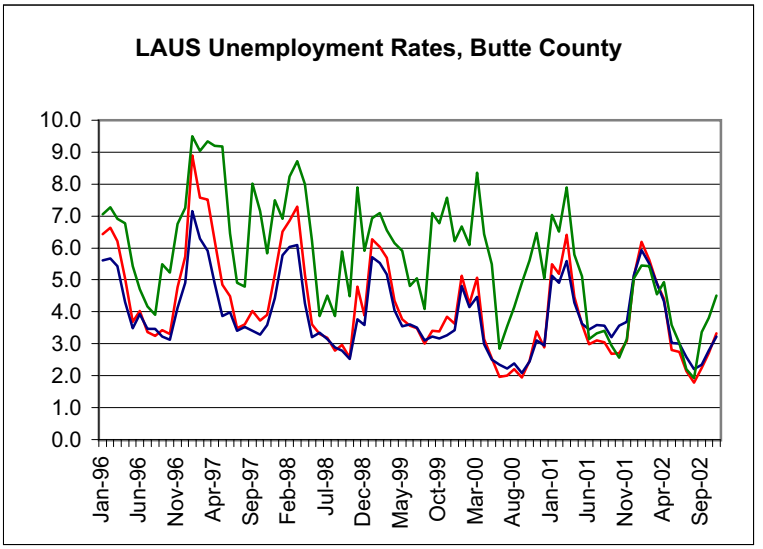












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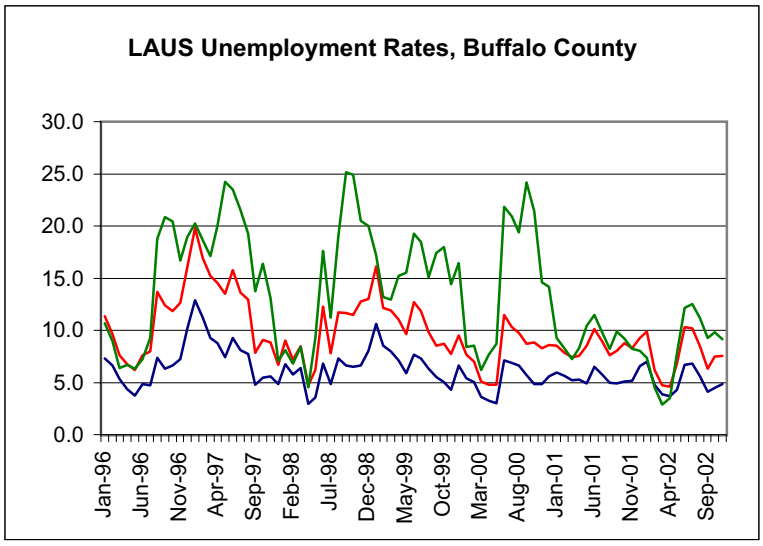
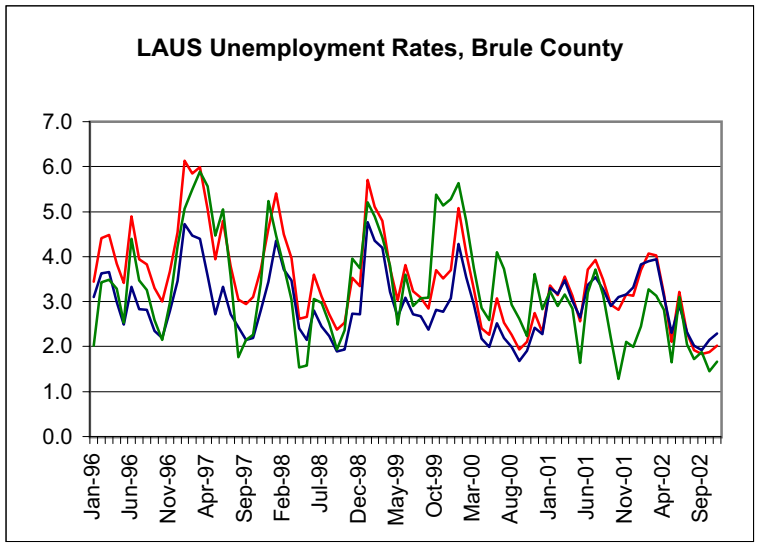
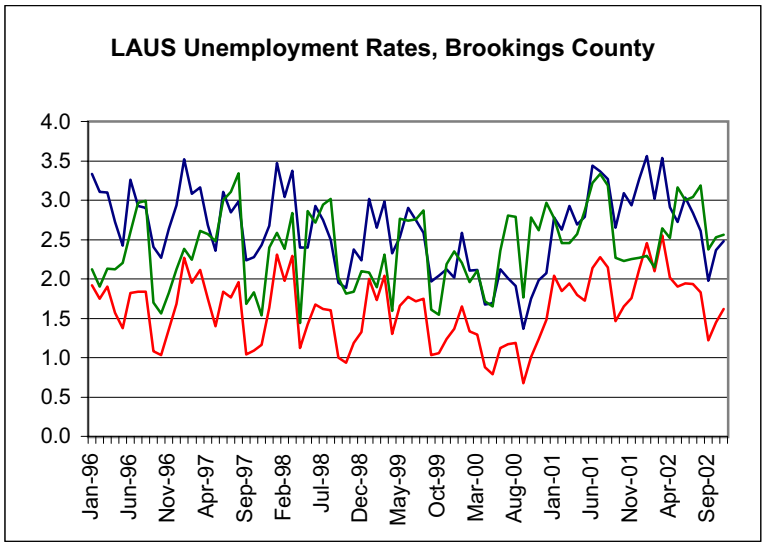
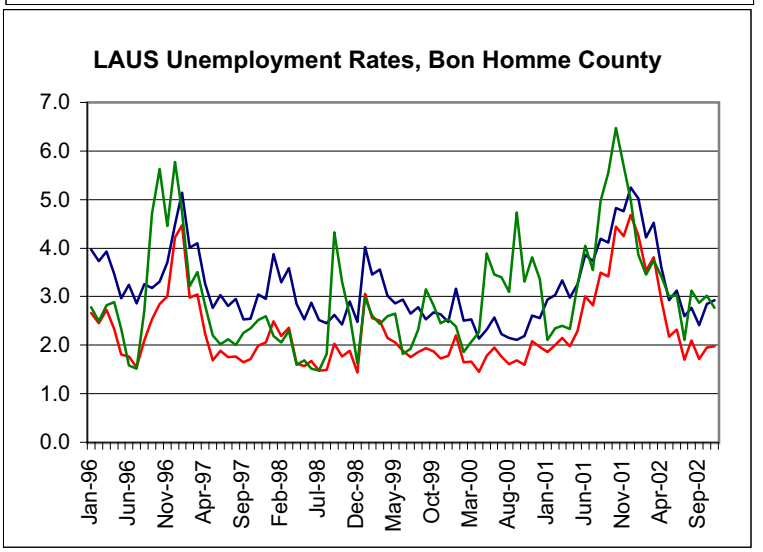
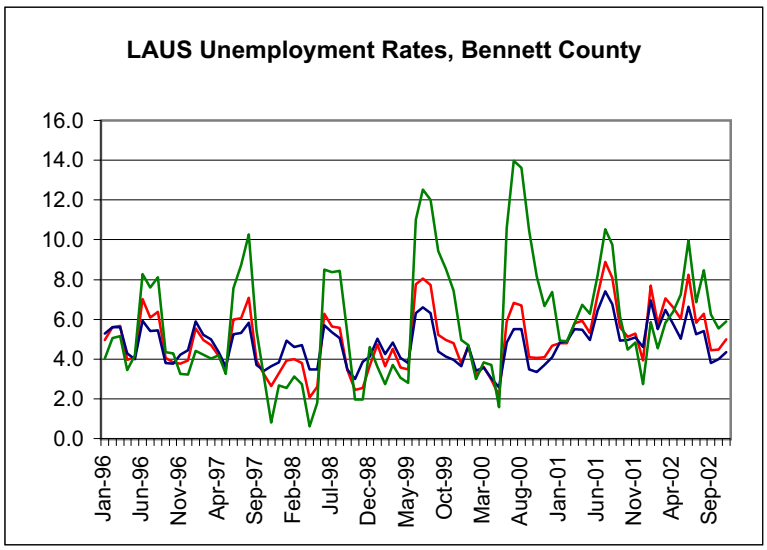
South Dakota
Unemployment Rates

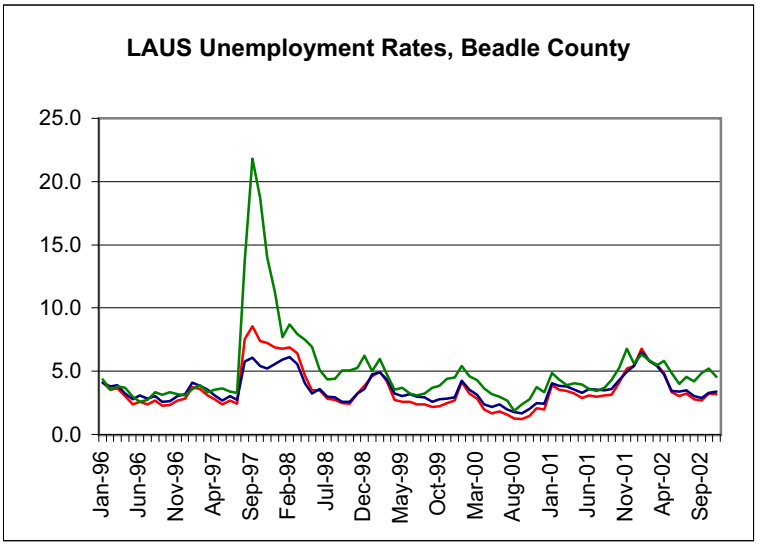












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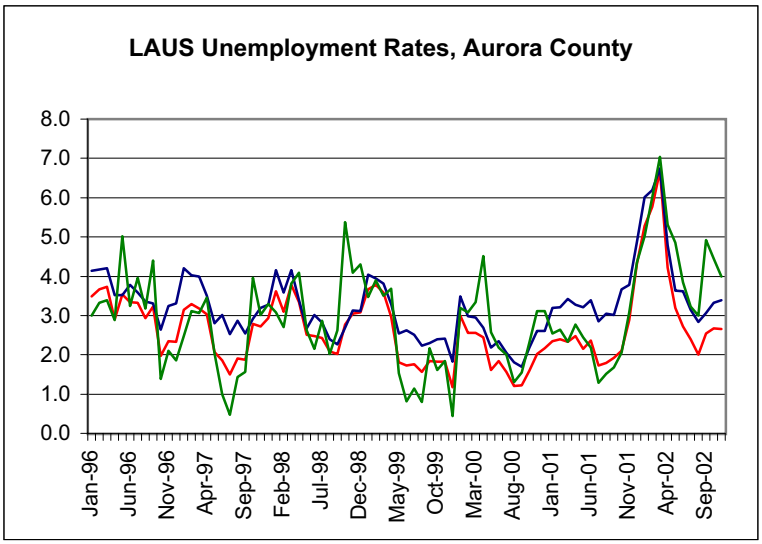

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